NTE Connecticut, LLC application for a Certificate of Environmental Compatibility and Public Need for the construction, maintenance and operation of a 550-megawatt dual-fuel combined cycle electric generating facility and associated electrical interconnection switchyard located at 180 and 189 Lake Road, Killingly, Connecticut	:	Docket No. 470
	:	April 24, 2017

POST-HEARING BRIEF OF
NOT ANOTHER POWER PLANT AND WYNDHAM LAND TRUST

Pursuant to the Council's invitation to the parties and intervenors to submit briefs and findings of fact by April 24, 2017, Not Another Power Plant and Wyndham Land Trust hereby submit this post-hearing brief regarding the application filed by NTE Connecticut, LLC ("NTE") on August 17, 2016. NTE applied to the Connecticut Siting Council (the "Council") for a Certificate of Environmental Compatibility and Public Need ("Certificate") pursuant to General Statutes §16-50k (the "Application" or "App.") regard a proposed electric generating facility and associated switchyard located in Killingly, Connecticut (the "KEC Facility").

In sum, the application must be denied based on NTE's failure to carry its burden to show that a public need exists for the KEC Facility. Furthermore, as proposed, the KEC Facility would result in serious environmental impacts, including noise and water issues. Finally, NTE failed to include the entire project in its application – impermissibly segmenting the KEC Facility from the proposed gas line that would fuel it – and failed to keep the Town of Killingly and its citizens appropriately informed under the Environmental Justice Act.

I. NTE Failed to Demonstrate Public Need

In order to issue a Certificate, the Council must find that a public need exists for the KEC Facility. "[A] public need exists when a facility is necessary for the reliability of the electric power supply of the state." General Statutes § 16-50p(c)(3); see also § 16-50p(h).[1]

The Applicant, NTE, carries the burden in proving to the Council that the KEC Facility is necessary for the reliability of the electric power supply in Connecticut. As will be discussed below, the Application and the testimony of NTE witnesses has failed to provide the Council with the evidence required to prove a necessity for the KEC Facility. Rather, the results of the most recent Forward Capacity Auction ("FCA"), and data prepared by ISO-New England ("ISO") shows that the testimony of Robert Fagan is more accurate and reliable than that of the NTE witnesses in determining that the KEC Facility is not necessary to meet the short or long term energy needs of the State of Connecticut, or for the New England ISO region.

As Fagan testified, the reliability of the electric power supply is composed of two components – resource adequacy and transmission security. (Robert Fagan[2] Pre-Filed Testimony ("Fagan Test."), 11:5-6.) Resource adequacy is the reliability component at issue in the Application. In New England, ISO determines reliability using a probabilistic-based model of the electric power system that determines the level of capacity needed to keep the lights on. (Id. at 18:13-14.) This modeling is updated regularly. (Id. at 18:14-15.) ISO annually computes an installed capacity requirement ("ICR"), which accounts for resource characteristics such as

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[1] As noted during the cross examination of NTE witnesses by the Council, the KEC Facility would cause numerous adverse environmental impacts, including the destruction of wetland areas, impacts to wildlife, the removal of substantial amounts of trees, and grading and removal of soils. These impacts are not discussed in detail in this brief but evidence of them exists in the record before the Council. (See, e.g., Hearing Transcript ("Trans."), 206:25-246:6.).

[2] Fagan is a mechanical engineer and energy economics analyst who has analyzed energy industry issues for more than 30 years. (Fagan Test., 1:10-11.)

outage rates and the peak load forecasts. (Id. at 12:1-3.) Net ICR ("NICR") is the ICR value less credits for Hydro-Quebec interconnections. (Id. at 12:3-4.) Resource capacity in excess of the minimum ICR or NICR levels can be said to be surplus to, or in excess of, reliability requirements. (Id. at 12:7-8.) ICR and NICR both already incorporate reserve margins – 5,433 MW and 4,474 MW for the 2020/2021 time period, in which ICR and NICR total 35,034 MW and 34,075 MW, respectively. (Id. at 13, Table 1.) Witnesses for NTE have not disagreed with Fagan's explanation of ISO's computation of ICR and NICR.

The manner in which ISO assures that adequate capacity is designated for future years is through the FCA that is conducted each year. Prior to each auction, ISO establishes the ICR and NICR targets for the capacity obligation period three years after the year in which the auction is held. In the year prior to each annual auction sources of existing generation notify ISO whether or not they intend on participating in the upcoming auction, and new sources of electric generation go through a pre-approval process with ISO and then are qualified to enter the auction. The most recent FCA occurred on February 6, 2017 ("FCA 11") and capacity obligations (ICR and NICR) were identified for the time period beginning June 1, 2020 and continuing through May 30, 2021. (ISO-NEW ENGLAND, INC., Press Release Auction Acquires Power System Resources Needed for 2020-2021 at a Lower Price, February 9, 2017, available at https://www.iso-ne.com/static-assets/documents/2017/02/20170209_FCA11_initial_pr.pdf ("ISO Release").)

FCA 11 began with significant competition among resources to provide reliability services in New England. Resources totaling 40,463 MW, including 34,505 MW of existing capacity and 150 new resources totaling 5,958 MW, competed to provide the NICR target of 34,075 MW. (Id. at 1.) NTE was qualified by ISO to enter the auction and on February 6, 2017,

NTE started the auction process. However, when FCA 11 concluded with commitments of 35,835 MW to be available in 2020-2021, the KEC Facility was not part of the capacity that cleared FCA 11. (Hearing Transcript ("Trans."), 1154:21-25.) And, because the NICR was 34,075 MW, FCA 11 concluded with 1,760 MW of surplus capacity. (Id.) Because NTE withdrew from the auction and did not clear FCA 11, the KEC Facility has no firm obligation to provide capacity to anyone at any time. (Id. at 1186:5-10.)

NTE's withdrawal from FCA 11 came as a surprise to all, especially since NTE stated emphatically in the Application that "capacity resources that clear the FCA are, by definition, needed for reliability." (App., § 3.2.) NTE included no other criteria in the Application to establish need . During the hearing, the Council's siting analyst, Michael Perrone, noted that the Application ties need solely to FCA 11. (Trans., 184:3-6.) Similarly, Council member Senator James Murphy noted, "this application to me, one of the important things for us to make a determination is on need, and I think this whole thing does a pretty poor job of that. Basically, as I peruse through the volumes of material, there's not very much on that. And it seems to me that the applicant is resting upon the presumption that in the forward capacity auction coming up in February they're going to make the cut and that, per se, means they are needed." (Id. at 256:14-23.)

Perhaps due to this criticism, NTE realized that it was dangerous to rely solely on clearing FCA 11 to establish need for purposes of General Statutes § 16-50. So, while testifying on November 3, 2016, NTE witness Michael Bradley added other attributes that he decided constituted need and that (not coincidentally) were attributes that NTE might meet. (Trans., 184:11-185:13.) At a later hearing, Bradley confirmed that these arbitrary attributes of need for the KEC Facility are: (a) NTE's projection that it would clear FCA 11 (which it did not do); (b)

its status as a dual-fuel facility, which allegedly would promote winter reliability; (c) its quick ramp rate, which would allegedly facilitate integration of renewable energy resources; and (d) its impact on reducing overall greenhouse gas emissions. (Trans., 472:22-25; 473:1-10.) The Council will not find these self-selected and arbitrary elements of need in any regulation, guidance, or ISO document. Instead, they were established by NTE ad hoc to bolster an otherwise weak or non-eistent showing of need in the Application.

The latter three attributes created by Bradley will be addressed in greater detail below, after addressing NTE's primary argument – that need could be established by clearing an FCA. In contrast to NTE's position, Fagan testified that clearing an FCA is not an indication of need. (Fagan Test., 15:1-4.) The FCA is simply the process by which capacity is secured. (Id.) Need is actually determined by considering the ICR and NICR established by ISO in relation to available resources. (Id.) Fagan's Pre-Filed Testimony provides a clear and succinct analysis of the ICR and NICR values, both historic and projected. (Fagan Test., 20, Table 3.)

Fagan further explained that in determining future capacity needs for Connecticut and the New England region, several trends in energy policy and in actual historic energy usage must be considered. These trends are largely ignored or substantially discounted by NTE. For example, ISO data shows that for the three FCAs occurring prior to FCA 11, the amount of capacity that cleared each auction exceeded the NICR by 574 MW, 1,274 MW, and 1,812 MW, respectively. (Fagan Test., 20, Table 3.) In other words, New England has had more than sufficient existing and new capacity resources to meet the NICR requirements. Moreover, over the same time period, the amount of new demand-side and import resources has increased progressively. (Id.) Such increases mean that there is no need for new generating resources in order to meet NICR and ICR.

ISO data also shows that actual net peak loads and actual net annual electricity consumption has declined in both Connecticut and New England over the past decade, and future net peak loads are currently projected to be flat or declining in New England. (Fagan Test., 32:10-13.) In recent years, each successive annual update to ISO's 10-year-forward load forecast shows a lower peak load forecast for any given future year relative to the earlier vintage forecast. (Id. at 32:13-15.) In other words, when forecasting net peak loads for establishing NICR values for each auction period, subsequent adjustments using the actual peak load show that ISO regularly overstates the anticipated net peak load used for purposes of the auction. As a result, the capacity surplus that is achieved on the date of the auction subsequently increases.

The two dominating factors behind the flattening of the net peak load forecast are Connecticut and New England's increasing investment in energy efficient resources and the region's investment in behind-the-meter solar photovoltaic resources. (Id. at 35:1-4; see also id. at 37, Tables 5 and 6, and id. at 38, Figures 4 and 5.) In its final biennial report reviewing Connecticut's forecasts of loads and resources, the Council noted the importance that energy efficient resources play in reducing the need for new generation. (Id. at 35:7-12 (quoting the Council as stating that "energy efficiency and related programs are an extremely important part of Connecticut's electric energy strategy").)

The Connecticut Department of Energy and Environmental Protection ("DEEP") also recognizes that Connecticut has a surplus of energy capacity. In its 2014 Integrated Resource Plan ("IRP Report"), DEEP states: "For more than a decade, the New England region has enjoyed a surplus of electric generating capacity needed to meet reliability objectives. The 2014 IRP projects that Connecticut will continue to have plenty of capacity through 2024 and beyond,

due to ample in-state generation, low demand growth, and new transmission built to reduce congestion." (IRP Report, iii; Adm.Notice No. 69.)

The Council similarly stated in Docket No. F-2014/2015, "even taking into account the most conservative prediction, ISO-NE 90/10 forecast, and conservatively neglecting the effects of non-ISO-NE-dispatched DG, the electric generation supply during 2015-2024 will be adequate to meet demand." (Connecticut Siting Council Review of the Ten-Year Forecast of Connecticut Electric Loads and Resources, Docket No. F-2014/2015 at 50 ("Ten-Year Forecast") (Adm. Notice No. 38.)) With respect to both the IRP Report and the Ten-Year Forecast, Council Chairman Robert Stein stated in this hearing that "both of these seem to, not imply, but seem to state rather clearly that our energy generating resources will be more than adequate." (Trans., 410:12-15.) Council member Robert Silvestri noted that Connecticut is currently a net exporter of electric energy and has sufficient capacity to meet its own energy needs for far into the future. (Id. at 305:11-12.) Bradley agreed with this statement: "As you mentioned, the Connecticut IRP and other documents do say Connecticut has sufficient capacity." (Trans., 282:3-5.)

Steadily increasing renewable energy supplies and increasing levels of energy efficiency required by existing energy policies and greenhouse gas emission limitations in all New England states and New York will provide both energy and capacity, and will eventually lead to increasing retirements of the remaining fossil units in New England. (Fagan Test., 6:6-11.) New storage capacity will also play a role; for example, Massachusetts' energy storage policy includes a recommendation to have 600 MW of system storage installed by 2025. (Id. at 6 n. 8.) Further, Massachusetts has specific timeframes in place to secure 1,600 MW of offshore wind resources by the end of the 2020 decade. (Id. at 27:18-20.) Any new fossil fuel generating facilities, even

natural gas facilities, will hinder the attempts by Connecticut and other New England states to reduce greenhouse gas emissions by targeted levels over the next few decades. (Id. at 6:15-7:1.)

Finally, as Chairman Stein noted during the hearing, ISO and some of the New England states are concerned about the New England region being over-reliant upon natural gas. (Trans., 186:9-13.) NTE responded to this concern by noting that KEC has dual fuel capacity. Id. However, the air permit for the KEC Facility will severely limit the use of ultra-low sulfur diesel fuel ("ULSD") and the Applicant noted that it expects to utilize ULSD sparingly – perhaps no more than a very few hours per year. (Trans., 372:1-4.) Thus, the dual fuel option does nothing to alleviate concerns that New England electric generating capacity has become over-reliant upon natural gas.

Despite all of the ISO data and legislative initiatives, NTE argues that there is a need for a 550 MW natural gas-fired power plant. As noted above, a public need, as defined in General Statutes § 16-50p(c)(3), "exists when a facility is necessary for the reliability of the electric power supply of the state." NTE has the burden to show that but for the existence of the KEC Facility, Connecticut will necessarily fail to meet its obligation to provide reliable electric power to its citizens. Even NTE admits that the iRP Report "and other documents do say Connecticut has sufficient capacity." (Trans., 282:3-5.) The Council and DEEP have determined that a need for additional capacity in Connecticut will not exist at least through 2024. (IRP Report, iii; Ten-Year Forecast, 50.) The evidence before this Council shows that NTE is simply not necessary for the current and future reliability of the electric power supply in Connecticut.

Nevertheless, NTE wants the Council to reverse its prior findings on electric capacity need by projecting the imminent demise and retirement of thousands of megawatts of capacity from oil and coal-fired facilities. To support this argument, NTE relies on a questionable exhibit

in an attempt to show that by 2020 2,000 MW of capacity in Connecticut and 6,000 MW of capacity in New England will no longer be available. (Trans., 261:4-23.) As the Council aptly pointed out, this exhibit misrepresents the state of electric capacity in Connecticut and in New England. (Id.) While emphasizing potential "at risk" facilities, NTE chose to ignore the offsetting balance of new capacity that has already been approved by the Council and which will come on-line within the near future. (Id.) When capacity provided by Towantic, Bridgeport 5 and Lake Road are added to the equation, the so-called deficit in capacity is far less than what NTE represents. That deficit, which is based on a worst case scenario of losing thousands of MW of capacity from at-risk facilities, is more than adequately covered by: (a) the declining trend in energy use in New England; and (b) the addition of increasing quantities of demand resources and renewable energy.

The reality is that despite its modeling and dire projections of the loss of thousands of MW of capacity, all of the so-called at-risk facilities targeted by NTE for retirement cleared FCA 11 and have enforceable obligations to provide capacity for the June 2020 to May 2021 time period. (Trans., 1187:19-23.) NTE, in stark contrast, decided at the conclusion of the fifth round of FCA 11 that it could not accept the risk of locking into an enforceable capacity obligation at such a low capacity price.[3] (Id. at 1192:17-23.) As a result it is NTE, and not any of the at-risk facilities, that will not be in the capacity mix through at least May of 2021.

NTE's experts testified that its modeling showed a clearing price at FCA 11 of $6.19/kw-mo, based on: (a) existing and new capacity supply; and (b) demand, which was based on proprietary PA models and demand curves as of June 2016. (App., Ex. B, 13.) NTE witness

[3] While Shortlidge did everything possible to dance around the fact that the low capacity price did not bear on NTE's decision to withdraw from FCA 11, there is no escaping the fact that had the clearing price been $5.50/kw-mo, NTE would have stayed in the sixth round of the auction.

Shortlidge attempted to convince the Council that if he had known the clearing price would be $5.29/kw-mo, NTE would have remained in FCA 11 for round 6 and would have been ultimately successful.[4] (Trans., 1180:24-1181:6.) But no one can say whether NTE would have received a capacity commitment, even if it had bid into round 6. And, such a success would not have established need – 1,760 MW of extra capacity was actually cleared in FCA 11. (ISO Release, 1.) As Shortlidge explained, if NTE had received a capacity commitment, all it would have accomplished is the displacement of an existing source. (Trans., 1170:17-24.)

NTE's other self-serving "elements of need" are equally unpersuasive. Bradley alleged that the KEC Facility's status as a dual-fuel facility would promote winter reliability in Connecticut. (Trans., 473:1-6.) Fagan explained, however, that reliability requirements – the need for capacity – are driven by summer loads because they are much greater than winter loads. (Fagan Test., 17:2-3.) For example, net summer peak load in 2016 in New England, forecast to be 26,704 MW and actually reaching just 25,466 MW in August, was much greater than projected winter peak loads which are on the order of 21,000 to 22,000 MW. (Id. at 17:3-5.) ISO must be assured of fuel supplies for generators in the winter, but there is more than adequate electrical generation capacity to meet the winter demands. (Id. at 17:5-7.) The New England region has sufficient dual-fuel capabilities, plentiful reserve capacity, and extensively developed policies in place to ensure winter reliability without the additional generating capacity of the proposed KEC Facility, in both the near term and in the longer-term. (Id. at 49:19-50:3.) Additionally, if the KEC Facility needed to actually use that dual-fuel capability and run on ULSD, it would only have a two-day supply on-hand. (Trans., 188:3-7.) After that, it would

[4] Shortlidge indicated that NTE's minimum number was somewhere below $5.29/kw-mo, but higher than $4.00/kw-mo. (Trans., 1169:13-16.) What the exact number was, no one knows, as he avoided commenting on this specific point. (Id. at 1181:1-2.)

require approximately 48 tanker trucks per day to continue to operate. (Id. at 189:6-13.) The source of fuel for those trucks has not been determined, which was a matter of concern to the Council. (Id. at 332:10-24.)

Bradley also alleged that the quick ramp rate, which would allegedly facilitate integration of renewables, showed that the KEC Facility was needed. (Id. at 473:2-6.) To the contrary, the New England region has sufficient, existing supply and demand-side dispatchable resources and schedulable import resources to balance varying net load patterns that will arise in part because of the presence of renewable resources. (Fagan Test., 10:3-6.) Future additional import, storage, and demand-side resources can complement this sizable resource base which includes over 12,000 MW of existing combined cycle gas plants. (Id. at 10:7-9.)

Finally, Bradley's claim that the KEC Facility would result in greenhouse gas reductions is incorrect, based on flawed modeling and faulty input assumptions. (Fagan Test. (unredacted), 57:5-59:13.) It is also worth noting that NTE does not provide any information regarding greenhouse gas emissions over the life of the KEC Facility beyond 2024, when Connecticut's greenhouse gas emission reduction targets will continue to increase. (Fagan Test., 59:19-60:1.)

NTE became so determined to step back from its initial singular focus on clearing FCA 11 that it informed the Council that it still intended to proceed with construction even without a capacity commitment. (See NTE Response to Council Interrogatory 81 ("NTE plans to continue with the development and construction of KEC, even if KEC does not clear FCA #11.").) This oddly appealing "if we build it, they will come" approach straight out of the Field of Dreams certainly demonstrated apparent confidence. That confidence quickly eroded, however, following FCA 11 when the reality sunk in of constructing a facility costing half of a billion dollars without a capacity commitment and Shortlidge did a quick pivot and

offered the Council the option to approvethe KEC Facility with the condition that no construction will occur until NTE eventually clears an FCA. (Trans., 1179:9-13.) In other words, to assist NTE with its failure to clear FCA 11, NTE is asking the Council to use capacity projections and energy need values created by ISO, DEEP and the Council today, so that they can build their plant anywhere from 2021 to an undetermined date. That would require some masterful projections of energy needs going out five years or more, when NTE failed to predict a viable clearing price for FCA 11 when it was only six months away. Furthermore, by committing now to a natural gas fired facility that may never get a capacity obligation from ISO, the Council may be precluding other more efficient, cleaner facilities from being built.

NTE was wrong about the clearing price and wrong about plant retirements. NTE failed to achieve the one thing that the Application said would prove a need for this facility – clearing FCA 11. NTE also failed to anticipate the impacts of energy efficiency and electric capacity in New England. NTE ignored the reality that, in order to comply with multiple legislative policies and mandates, New England must proceed away from fossil fuel sources and toward renewable resources. NTE failed to acknowledge other demand resources and the true state of winter reliability in this region. Fagan, on the other hand, was correct in his projections and testimony. The Council should rely on Fagan's testimony with regard to need and conclude that there is no need for the KEC Facility and that NTE has failed to meet its burden.

II. NTE Impermissibly Segmented its Application

NTE seeks a Certificate for the construction of an electric generating facility and related switchyard. (App., § 1.1.1.) This proposed facility is ineffective in generating and transmitting electricity without a natural gas fuel source. In order to operate, NTE needs a maximum of 3.9 million cubic feet per hour of natural gas at a minimum pressure of 550 pounds per square inch gauge ("psig") when operating at 100% capacity and approximately 650 psig at the Site

Boundary. (Id. at § 2.5; see also Trans., 561:3-7 (NTE agreeing that the KEC Facility cannot operate without a source of natural gas).)

NTE plans to connect its proposed facility to the Algonquin Gas Transmission ("AGT") main line located 2.8 miles away in Pomfret, Connecticut. (App., § 8.1.1.) The natural gas pipeline path that NTE has chosen will utilize an existing Eversource right-of-way. (Id.) Within this 2.8-mile long and 50-foot wide right-of-way, Eversource must remove, replace or upgrade the existing pipeline so that a much larger pipeline of "at least 14 inches with a pressure of 700 psig" can be installed. (Id. at § 8.1.) The pipeline is currently in the range of 4-6 inches in diameter. (Trans., 202:18-23.)

The Application summarizes the work associated with the removal, upgrade and replacement of the natural gas pipeline. The pipeline traverses many protected and regulated natural resources:

> From the [point of interconnection] with the AGT pipeline, the existing pipeline heads southeast beneath a wetland area for approximately 2,000 feet, then continues southeast for approximately 600 feet abutting an open field before crossing Holmes Road and the Airline North State Park Trail. The pipeline continues southeast for approximately 3,000 feet through forested and protected open space, then heads south, paralleling Durkee Brook for approximately 3,000 feet. The pipeline continues southeast for approximately 2,500 feet, passing west of Bruce's Pond and crossing River Road. The pipeline continues in a southeasterly direction, crossing the Quinebaug River into the Town of Killingly. South of the Quinebaug River, the pipeline continues approximately 2,000 feet through forested lands until it enters the southern edge of Lake Road. . . . The approximate length of the existing pipeline is 2.8 miles."

(App., § 8.1.1.) Figure 8-1 of the Application provides a general map of the pipeline.

The new pipeline must cross, go through, or abut open space and protected land held by the Wyndham Land Trust; the Bafflin Sanctuary owned by the Connecticut Audubon Society; the Airline North State Park Trail; a large undeveloped parcel owned by the Pomfret Rod and Gun Club; and the Quinebaug River. (Id. at § 8.1.8.) Additionally, "The existing pipeline

traverses several wetland areas." (Id. at § 8.1.5.) In order to construct the necessary pipeline "some clearing may be necessary to accommodate the replacement lateral and to provide sufficient workspace for construction." (Id.)

Despite this, NTE performed no analysis regarding the environmental impact of the new pipeline, instead leaving discussion of these details to a future date, when a separate application may be submitted by a third party, Eversource. During the hearing, Dr. Klemens noted the problem with NTE's approach, when he asked, "you can't provide information on amount of wetland potential impact, amount of wetland digging, how you're going to protect the wetlands, how you're going to protect the wood turtles, you're saying we have to wait for another day to get that plan?" (Trans., 233:9-14.) Such a division of an application in order to avoid a comprehensive review of a facility is referred to as "impermissible segmentation" and is "universally criticized." See In the matter of Amenia Sand and Gravel, Inc., 2000 WL 1845906, at *2 (N.Y. Dep't of Env. Cons., Nov. 22, 2000).

For example, in Delaware Riverkeeper Network v. FERC, the petitioners appealed FERC's issuance of a certificate of public convenience and necessity on the grounds that FERC did not consider, as part of its environmental review of the Northeast Upgrade Project, three other connected, contemporaneous, closely-related and interdependent Tennessee Gas pipeline projects. 753 F.3d 1304 (D.C. Cir. 2014). FERC is required to satisfy the National Environmental Policy Act ("NEPA"), 42 U.S.C. §§ 4321-4370h, by identifying and evaluating the environmental impacts of actions that require a certification of public convenience and necessity. In Delaware Riverkeeper, FERC conducted a NEPA review of the Northeast Upgrade Project and recommended a Finding of No Significant Impact without considering the environmental impact of three other Tennessee Gas upgrade projects on the same line. Id. at

1308. Under the NEPA regulations, FERC is required to include "connected actions," "cumulative actions," and "similar actions" in a NEPA review. 40 C.F.R. §1508.25(a). The Appellate Court found that the four pipeline projects were "connected actions" because there is a "clear physical, functional, and temporal nexus between the projects," and remanded the case back to FERC for consideration of the four projects. Delaware Riverkeeper, supra, 753 F.3d 1308-09.

The Second Circuit similarly discredits segmentation as "an attempt to circumvent NEPA by breaking up one project into smaller projects and not studying the overall impacts of the single overall project." Stewart Park & Reserve Coalition v. Slater, 352 F.3d 545, 559 (2d Cir. 2003); see also, Town of Huntington v. Marsh, 859 F.2d 1134, 1142 (2d Cir. 1988) ("Segmentation is to be avoided in order to insure that interrelated projects, the overall effect of which is environmentally significant, not be fractionalized into smaller, less significant action."). The standard established by the Second Circuit is that a project is improperly segmented "if the segmented project has no independent utility, no life of its own, or is simply illogical when viewed in isolation." Stewart Park, 352 F.3d at 559 (citing Hudson River Sloop Clearwater, Inc., v. Dep't of Navy, 836 F.2d 760, 763-64 (2d Cir. 1988)).

Connecticut trial courts have followed federal case law concerning impermissible segmentation, finding in City of Norwalk v. Connecticut Siting Council, that

> [t]he courts have held that "impermissible segmentation" occurs where there are two proposed actions and "the proposed component action has little or no independent utility and its completion may force the larger or related project to go forward notwithstanding the environmental consequences . . . Courts have also required that environmental effects of multiple projects be analyzed together when those projects will have a cumulative effect on a given region . . . Finally, multiple stages of a development must be analyzed together when the dependency is such that it would be irrational, or at least unwise, to undertake the first phase if subsequent phases were not also undertaken.

2004 WL 2361540, at *12 (2004). And, in City of New Haven v. Connecticut Siting Council, the

court applied the "independent utility" test in a claim that the Council had impermissibly segmented review of an application. 2002 WL 847970, at *2 (2002).

A purpose of the Public Utility Environmental Standards Act ("PUESA") , General Statutes §§ 16-50g et seq., is "to provide environmental quality standards and criteria for the location, design, construction and operation of facilities for the furnishing of public utility services at least as stringent as the federal environmental quality standards and criteria." Id. (emphasis added). Thus the Council is compelled under both CEPA and PUESA to consider all connected, cumulative and similar actions as part of its review of the Application.

As the facility cannot operate without a source of natural gas, the Council must consider the environmental impact of the replacement of the 2.8 miles of natural gas pipeline. The Council raised concerns about the wood turtles, wetlands, wetland restoration and the control of invasive species during the hearing. (Trans., 234:16-19.) None of those questions were sufficiently answered, due to NTE's lack of analysis. Based on the limited information provided by NTE regarding these interrelated activities, the Council must conclude that the environmental impact to the wetlands, river, open space and protected land that the proposed pipeline will cross and abut will outweigh any potential benefits of the proposed facility.

III. NTE Failed to Adhere to the Environmental Justice Statute

Prior to the filing of the Application, the slow progression of information and documents selectively disseminated by NTE the public was not consistent with the Environmental Justice Statute, General Statutes § 22a-20a, and the purpose of that law. Killingly is an Environmental Justice Community, as that term is defined in the statute. (App., 6.) The Environmental Justice Statute requires that an "informal public meeting" be held. The Council may not take any action on any matter subject to the Environmental Justice Act until 60 days have passed after the informal public meeting. General Statutes § 22a-20a(b)(5). NTE has not conducted a meeting

that qualifies as an "informal public meeting" under the Environmental Justice Statute. The key language is in subsection (b)(4) of the law:

> At the informal public meeting, the applicant shall make a reasonable and good faith effort to provide clear, accurate and complete information about the proposed facility or the proposed expansion of a facility and the potential environmental and health impacts of such facility or such expansion.

General Statutes §22a-20a(b)(4) (emphasis added). The Environmental Justice Statute is meant to provide persons in distressed communities with an opportunity to have meaningful input on a project prior to submittal to an administrative agency. If an applicant should substantively change a project after it has provided initial information and received public input, the new or modified information must be provided to the public and a subsequent public information meeting must be conducted prior to any agency acting on the new or modified information. Otherwise the proponent of the facility is allowed to play a shell game of giving the public one set of data, while surreptitiously giving the administrative agency different data.

NTE provided incomplete information regarding the proposed KEC Facility at the last public meeting it held prior to filing the Application, which it admitted during the hearing. Specifically, the last general public meeting that NTE participated in prior to filing the Application was held on July 11, 2016. (Trans., 544:12-24.) The reports included in the Application as Exhibits D, E, F, M, and N were all dated August 2016. (Trans., 544:25-548:3.) In response to the Council's question regarding how the August reports differed from the information that had been provided to the public at the so-called informal public meeting in July, NTE's witness Lynn Gresock explained: "Many of those reports had not yet been published at that point, and we're relying on the fieldwork and analysis that was ongoing up until the time the application was submitted." (Trans.,

548:23-549:2.) Gresock later elaborated that because technical work or field activities were still ongoing, "it wasn't yet time to have a public report." (Trans., 549:24-550:4.)

Assuming that all information that will be provided to the Council has now been provided to the public, the informal meeting required by the Environmental Justice Act can now be held. The July, 2016 meeting does not qualify as the required informal public meeting because much of the substantive information on the KEC Facility was not available to the public at that time. Until sixty days have passed subsequent to that informal meeting, the Council is not permitted to "take any action on the applicant's permit, certificate or approval." General Statutes § 22a-20a(b)(5). Adherence to these procedures is the only way to ensure that the environmental and health impacts to the people of Killingly are minimized and that their voices are both well-informed and clearly heard. Until those procedures are followed, the Council is without authority to act on this Application.

IV. NTE Failed to Minimize Visual and Noise Impacts

Visual Impacts

NTE included a Visual Impact Assessment (the "VIA") in the Application. (App., Ex. K.) The VIA focused primarily on the ability to view the 150-foot stack at the KEC Facility from ten locations. (App., Ex. K, 18-20.) The VIA identified eight "key aesthetic resources" within a 5-mile radius of the KEC stack that "may be especially sensitive to changes in view." One of the key resources is the 32-acre Dunn Preserve that is directly adjacent to the KEC Facility, forming the southwest border. The Dunn Preserve is owned by the Wyndham Land Trust (the "Trust") and was acquired by the Trust in 1992 with the mission to conserve the natural resources of the Dunn Preserve and to provide recreational and educational opportunities to the public. (See Pre-filed Testimony of Benjamin Williams.)

While the VIA primarily considers the visual impact of the proposed KEC stack, the revised site plans reveal that the one million gallon diesel fuel tank, fuel gas metering and heating equipment, and water storage tanks will be located as close as 60 feet to the border with the Dunn Preserve. (See NTE's response to the Wetlands Orders ("NTE Resp."), Ex. 2.) Furthermore, while NTE testified that it would attempt to leave a 50-foot buffer of trees between the developed portion of the site and neighboring properties (Trans., 871:6-11), such a buffer would be impossible along the border with the Dunn Preserve. Based upon the evidence provided to this Council, little to no vegetative buffer will be present on the NTE property between the Dunn Preserve and the one million gallon diesel fuel tank. As a result, there will be little to no visual screening of the KEC Facility for persons using the Dunn Preserve to the southwest of the KEC Facility.

The VIA misrepresents the vegetation screening for an observer located on the "Dunn Preserve KOP" in Exhibit 9. (Trans., 877:10-25.) As the revised site plan shows (NTE Resp., Ex. 2), vegetation will extend from the "Observer" position on Figure 9 for no more than 60 feet and not the 200 feet shown on Figure 9. Thus, the stack, as well as the KEC Facility as a whole, will be visible to anyone using the Dunn Preserve. NTE's contention that "an observer on the Dunn Preserve would be surrounded by tall, dense vegetation, which would significantly screen any view of KEC" is simply wrong. As Mr. Williams testified in his pre-filed testimony, construction of this industrial plant on the doorstep of the Dunn Preserve would destroy the mission and intended use of many areas of the Preserve, which long predates the KEC Facility.

To prevent this occurrence, NTE should be required to all times maintain at least a 100-foot buffer of trees between developed portions of the KEC Facility and adjacent property borders. A 100-foot setback of vegetation will substantially reduce the visual impact presented

by the large industrial buildings and one million gallon diesel tank that will be located almost on the border of the Dunn Preserve. That is the only way to help protect at least some of the value of the Dunn Preserve.

Noise Impacts

Noise from the KEC Facility will unmistakably have one of the more pronounced day-to-day impacts on the local population; therefore, measures must be in place to prevent noise levels from violating state and local standards and not otherwise creating a legal nuisance. Additionally, local and state officials must have the authority to enforce those regulations through orders that can stop the operation of the KEC Facility in the event of noise exceedances. No other remedy will adequately address the toll that day-to-day noise violations might take on area residents, who were not anticipating the construction of an industrial facility in an area zoned for rural residential use.

State and local noise standards are different, despite indications to the contrary in NTE's Sound Survey and Analysis Report ("Sound Survey") (App., Ex. L) and in its Updated Acoustic Modeling Analysis dated October 27, 2016 ("Update"). Under State law, areas are assigned a noise zone classification based on the actual use of the land. Class A noise zones are used for single family homes, forest preserves, and land intended for residential or special uses requiring such protection. Regs., Conn. State Agencies § 22a-69-2.3. There is no dispute that properties surrounding the proposed KEC Facility are situated within Class A noise zones. (Trans., 839:13-16.) A Class C noise zone is an industrial area with uses similar to the proposed KEC Facility.

State law provides that, "no person shall cause or allow the emission of excessive noise beyond the boundaries of his/her Noise Zone so as to violate the provisions of these regulations." Regs., Conn. State Agencies § 22a-69-3. A Class C emitter cannot emit a noise that enters a

Class A noise zone in excess of 61 dBA during the day, or 51 dBA at night. Regs., Conn. State Agencies § 22a-69-3.5. Also, no person may cause or allow the emission of impulse noise in excess of 80 dBA peak sound pressure level during the nighttime to any Class A noise zone. Regs., Conn. State Agencies § 22a-69-3.2.

While NTE accurately describes the state noise regulations, it improperly applies the Town of Killingly noise ordinance. See Killingly Code of Ordinances, § 12.5-120 et seq., available at http://www.killingly.org/sites/killinglyct/files/uploads/chapters_12_12.5.pdf ("Noise Ord."). The Killingly noise ordinance is similar to state law concerning the classification of land that is the receptor of the noise. But, the Killingly and State noise standards differ in how they treat the emitter of the noise. State law considers the type of emitting facility, while Killingly looks at the "zone in which the emitter is located." See Noise Ord., § 12.5-125(b). NTE is located in a residential zone and will remain located in such zone even after construction has been completed. (Trans., 844:13-20.) While NTE refers to the local Plan of Development which identifies the location of the Generating Portion of the KEC Facility as a possible industrial zone, such re-zoning has not occurred.[5] (Trans., 554:18-25, 555:1-2.) Thus, NTE will be emitting noise from a residential zone and sound pressure emissions from the KEC Facility, as measured at the property line and entering another residential property, may not exceed 55 dB in the daytime, and 45 dB at night. The Killingly noise ordinance is more restrictive than the state standards.

The alleged purpose of the Sound Survey and Update is to show that the KEC Facility, when operating, will comply with the state and local noise standards. For several reasons the data provided by NTE fails to do this. First, in order to determine noise impacts from future

[5] The Plan of Development does not include the proposed Switchyard Portion of the KEC Facility within the area that is identified for potential industrial use. (Trans., 550:22-25, 551:1-11.) The Switchyard remains in a Rural Development Zone under the Plan of Development. (Id.)

operations, NTE calculated L_{eq} (dBA) values at five discrete locations around the NTE property boundaries. (Trans., 848:4-8.) Three of the sampling points are located several feet off of the property boundary and in a Residential or Class A noise zone. (Id. at 9-15.) For purposes of determining compliance with the state and local regulations, however, sound pressure readings are measured within one foot of the property lines. See Regs., Conn. State Agencies § 22a-69-4(g). This modeling artificially lowers the sound pressure readings that will be present on the property boundaries.

Second, for compliance purposes, background levels of noise at the property border are determined through the calculation of an L_{90} value using statistical analyses. Regs., Conn. State Agencies § 22a-69-4(e). The L_{90} is defined as the sound pressure reading that is exceeded 90% of the time. It is not an average of the sound reading, which is the sound pressure reading that is exceeded approximately half of the time. NTE admitted that it did not conduct background noise level measurements at the five sampling locations for compliance purposes, and therefore did not record an L_{90} value. Instead, NTE reports only an average.[6] (Trans., 854:2-856:14.)

Next, for purposes of modeling, NTE used manufacturer's specifications of sound power to determine sound pressure levels that will be emitted from 35 discrete pieces of equipment that will be operated on the NTE site. (App., Ex. L, 21.) While the model utilizes the objective and subjective factors noted above to convert sound power at the emission source into sound pressure at the compliance location on or near the property border, NTE estimated that the sound pressure reading is about 10-15 dB lower than the sound power value, when measured at a distance of approximately three feet from the emitting source. (Trans., 858:5-12.) NTE notes that sound

[6] The measured sound pressure levels also have a margin of error of +/- 2 dB (a point not explained in the Sound Survey). (Trans., 850:15-21.)

pressure readings in the range of 80 or more decibels are considered to have a "significant" subjective impression. (App., Ex. L, 5; Trans. 860:13-19.) A lawnmower and jet ski are examples of such emitters. (App., Ex. L, 5.) The 35 discrete pieces of equipment that NTE will employ at this site have sound power values ranging from 73-118 dBA. (App., Ex. L, Table 8.) NTE noted that these values include sound abatement measures. (Trans., 859:14-21.)

Even when these sound power values are reduced by 10-15 dBA for a rough conversion to sound pressure, the result is that most of the equipment will create a "significant" noise source. Nevertheless, with multiple significant noise sources operating at the same time at the KEC Facility, NTE's modeling reveals that the projected sound pressure level created by the KEC Facility will range from only 39-50 dBA at the property line. (Update, Table 4.) The current ambient noise ranges from 32-47 dBA. (App., Ex. L, 14.) The model, therefore, is predicting that even with multiple sources of significant noise emissions, the KEC Facility will emit noise at or near the property boundaries at decibel levels that are equivalent to what is being recorded as ambient noise today. Such a conclusion casts substantial doubt on the reliability of the acoustic modeling performed for this project. But even if the modeling is taken at face value, noise levels projected for ST-2, ST-4, and the long term monitoring location, exceed the nighttime residential standard of 45 dB under the Killingly ordinance. (See Update, Table 4.)

CONCLUSION

NTE has failed to carry its burden of demonstrating that the KEC Facility would serve a public need, or that there would be a minimal impact to the surrounding environment and its inhabitants. Therefore, pursuant to General Statutes §16-50k, the Council should deny NTE's application.

NOT ANOTHER POWER PLANT
WYNDHAM LAND TRUST

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CERTIFICATION

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