

Richard C. Kirkland, Jr., MAI, ARA 9408 Northfield Court Raleigh, North Carolina 27603 Phone (919) 414-8142 rkirkland2@gmail.com www.kirklandappraisals.com

September 12, 2025

Mr. Kurt Nelson Jupiter Power, LLC 1108 Lavaca Street, Suite 110-349 Austin, TX 78701

Mr. Nelson

I have considered the likely impact of the proposed Blackberry Grove Battery Energy Storage System off 21435 NW West Union Road, Hillsboro, Washington County, Oregon.

The scope of this assignment is to address the likely impact this use may have on adjoining property values. To this end I have reviewed the site plan and considered the visual and related potential impacts on adjoining properties. I have considered matched pair/paired sales analysis for this study. I have previously considered battery storage in connection with solar farm activity as well as stand alone use similar to this project.

This letter is a real property appraisal consulting assignment. My client is Jupiter Power, LLC, represented to me by Mr. Kurt Nelson. The intended use is to assist in the Land Use Variance application. The effective date of this consultation is September 12, 2025.

The analysis and data used to form the conclusion is presented on the following pages attached to this summary letter.

Conclusion

Battery storage systems are commonly located in residential areas as shown in the data and there is no indication from these examples of a negative impact on value where there is sufficient separation and/or soundwalls or landscaping screens.

The typical factors that would trigger an impact on value, or external obsolescence, were considered and are shown to be mitigated to protect adjoining property values.

I conclude that the proposed battery storage system with the setbacks as presented will not have a negative impact on adjoining or nearby property values. The closest adjoining residence is 175 feet from the nearest proposed electrical equipment. The distance separating this home from the batteries is supported by market data as having no impact on property values and numerous examples of homes closer than the proposed distance were identified, even in areas with fewer mitigating factors such as the existing power station and industrial zoning at the site location that may already be impacting nearby property values.

Sincerely,

Richard C. Kirkland, Jr., MAL ARA

Richard C. Kirkland, Jr., MAI, ARA NC State Certified General Appraiser #A4359

OR State Certified General Appraiser #C001665

Table of Contents

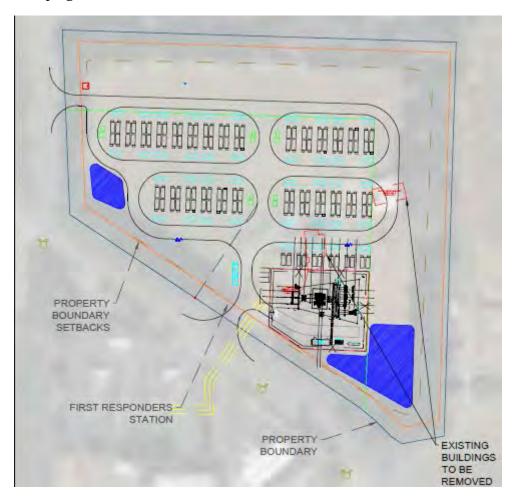
| Adjo | pining Uses | 5 |
|------|--|----|
| _ | Data Set | |
| II. | Similar Projects | 8 |
| III. | Market Data | 12 |
| IV. | Specific Factors Related To Impacts on Value | 52 |
| V. | Conclusion | 55 |

Proposed Use Description

The subject property is a 9.52 acres of land at 21435 NW West Union Road, Hillsboro, Oregon that is proposed to be developed with a battery energy storage system.

The proposed battery storage units will be placed in battery containers that are 13-feet tall. The entire perimeter of the battery storage area will be fenced in. The proposed batteries will allow for 100 MW for 4 hours, or 400 MWH.

The BESS is located in the middle to southern end of the property that is currently lined with an existing landscaping screen..



Adjoining Uses

The adjoining uses are primarily a mix of industrial, residential and agricultural uses. The subject property will be the southeastern edge of the tract outlined in red in the map below and adjoins the existing power station. The closest adjoining residential use that I identified is 175 feet from the nearest electrical equipment. This is a home on adjoining parcel 8 shown below.

The average distance to adjoining residences is 386 feet.

There is existing vegetation surrounds the property and provides a significant visual barrier in all directions. A number of the adjoining homes to the north and east include large storage buildings as well as the residential structures.



Adjoining Use Breakdown

| | Acreage | Parcels |
|-------------|---------|---------|
| Commerical | 19.25% | 15.38% |
| Railroad | 6.10% | 7.69% |
| Industrial | 7.81% | 7.69% |
| Residential | 66.83% | 69.23% |
| Total | 100.00% | 100.00% |

| | | | GIS Data | | Adjoin | Adjoin | Distance (ft) |
|----|---------------|--------------|----------|-------------|---------|---------|---------------|
| # | MAP ID | Owner | Acres | Present Use | Acres | Parcels | Home/Battery |
| 1 | 1N 2020002700 | N/A | 1.36 | Railroad | 6.10% | 7.69% | N/A |
| 2 | 1N214A002900 | Wilson | 1.10 | Residential | 4.94% | 7.69% | 315 |
| 3 | 1N214A002800 | Mendez/Gomez | 1.04 | Residential | 4.67% | 7.69% | 365 |
| 4 | 1N214A002700 | Allie | 1.04 | Residential | 4.67% | 7.69% | 350 |
| 5 | 1N214A002701 | Hickox | 1.04 | Residential | 4.67% | 7.69% | 340 |
| 6 | 1N214A002600 | Huynh | 1.03 | Residential | 4.62% | 7.69% | 335 |
| 7 | 1N214A004100 | Baird | 1.91 | Residential | 8.57% | 7.69% | 345 |
| 8 | 1N214A003100 | Liu | 1.85 | Residential | 8.30% | 7.69% | 175 |
| 9 | 1N214D000200 | Vanraden | 3.45 | Residential | 15.48% | 7.69% | 665 |
| 10 | 1N214D001600 | Tibbs | 2.43 | Residential | 10.91% | 7.69% | 580 |
| 11 | 1N214D001500 | Union Rd | 1.11 | Commercial | 4.98% | 7.69% | N/A |
| 12 | 1N214D000800 | Portland | 1.74 | Industrial | 7.81% | 7.69% | N/A |
| 13 | 1N214D000801 | N/A | 3.18 | Commercial | 14.27% | 7.69% | N/A |
| | Total | | 22.280 | | 100.00% | 100.00% | 386 |

I. Data Set

I started looking for similar projects based on an excel list provided by a different client of projects with a BESS component in the State of New York. I attempted to research those projects with a focus on larger projects and projects near residential uses.

I also considered a national list of BESS projects that included 670 listings. I sorted that list to only projects over 50 MW and removed all projects that were clearly including a solar, wind or other power production facility as part of that BESS. This left me with the following list of 27 listings. It is notable that the earliest operational date for this set is June 9, 2020 with most of these projects being newer. This is a function of the technology being deployed at this scale only more recently, though the earliest system in the larger set was from December 1, 2003.

| Owner Name | Plant Name | Plant State | Commercial Online Date | Storage Capacity MW |
|---------------------------------------|-------------------------------------|-------------|-------------------------------|---------------------|
| Byrd Ranch Storage LLC | Byrd Ranch Storage | Texas | 10/21/2022 | 50.0 |
| GlidePath Power Solutions LLC | Roughneck Storage | Texas | 09/30/2022 | 50.0 |
| KCE TX 11 LLC | Republic Road Storage | Texas | 06/15/2022 | 50.0 |
| KCE TX 13 LLC | Endurance Park Storage | Texas | 12/28/2022 | 50.0 |
| KCE TX 19 LLC | River Valley Storage 1 | Texas | 07/31/2023 | 50.0 |
| KCE TX 21 LLC | River Valley Storage 2 | Texas | 07/31/2023 | 50.0 |
| Coso Battery Storage LLC | Coso Battery Storage | California | 04/01/2022 | 60.0 |
| Valley Center ESS LLC | Valley Center ESS | California | 12/01/2021 | 139.0 |
| AES ES Alamitos LLC | Alamitos Energy Center | California | 01/01/2021 | 100.0 |
| Astral Energy LLC | Chisholm Grid Battery Storage | Texas | 10/01/2021 | 100.0 |
| Flower Valley II LLC | Flower Valley I - II | Texas | 03/30/2022 | 100.0 |
| Gambit Energy Storage LLC | Gambit Storage | Texas | 06/14/2021 | 100.0 |
| Ignacio Grid LLC | Ignacio Grid | Texas | 03/17/2023 | 100.0 |
| KCE TX 12 LLC | Silicon Hill Storage | Texas | 10/31/2022 | 100.0 |
| Madero Grid LLC | Madero Grid | Texas | 03/17/2023 | 100.0 |
| Swoose II LLC | Swoose 1 & 2 | Texas | 08/15/2022 | 100.0 |
| Bat Cave Energy Storage LLC | Bat Cave Storage | Texas | 10/22/2021 | 100.50 |
| North Fork Energy Storage LLC | North Fork (TX) | Texas | 10/22/2021 | 100.50 |
| Lockhart ESS LLC | SEGS VIII | California | 07/01/2023 | 109.0 |
| Lancaster Area Battery Storage LLC | Lancaster Battery Storage | California | 09/02/2022 | 127.0 |
| North Central Valley Energy Storage L | North Central Valley Energy Storage | California | 08/01/2023 | 132.0 |
| ES 1A Group 2 Opco LLC | Edwards & Sanborn | California | 08/01/2022 | 144.0 |
| Wolf Tank Storage LLC | Wolf Tank Storage | Texas | 07/18/2023 | 155.480 |
| Acciona Energy USA Global LLC | Turquoise Storage | Texas | 07/26/2023 | 196.210 |
| Diablo Energy Storage LLC | Diablo Energy Storage | California | 04/01/2022 | 200.0 |
| Crossett Power Management LLC | Crossett Power | Texas | 05/26/2022 | 200.0 |
| Gateway Energy Storage LLC | Gateway Energy Storage | California | 06/09/2020 | 250.0 |

I used this as a starting point in identifying projects similar to the subject. I have not researched all of these examples, though I did identify the locations of most of these. I have examples shown later in this report that came from earlier analysis looking at such facilities identified in a different manner. I have additional projects shown later that are not included in this list above.

II. Similar Projects

I considered the following battery storage facilities in a variety of states for a comparison of similar battery energy storage systems (BESS) in proximity to residential uses. I have also searched these areas for recent sales to see if there is any impact on property values near these battery storage facilities, which will be addressed in the following section.

The primary use of this larger set is to show compatibility of BESS and residential uses as well as showing typical setbacks between these uses. These measured distances are from the closest point on the home to the closest piece of equipment. Where I have N/A, the facility does not have an aerial image that I can use to measure that distance. These distances were measured using GoogleEarth.

Summary of Battery Data

| # Name 0 Claire | City/State Baytown, TX | Acres 9.27 | Year Built Proposed | Capacity (MW) | | Average Distance Adjoining Home 131 | Soundwall |
|-----------------------|----------------------------------|-------------------|----------------------------|------------------|-------|---|-----------|
| 1 Cane Run | Cane Run, KY | 416.8 | Proposed | 400.0 | 1190 | 1,830 | No |
| 2 Medway Grid | Medway, MA | 10.6 | Proposed | 250.0 | 150 | , | |
| 3 Diablo | Pittsburg, CA | 11.45 | 2021 | 200.0 | 320 | | |
| 4 Fort Watt | Fort Worth, TX | 47.94 | Proposed | 200.0 | 515 | | |
| 5 Cranberry | Carver, MA | 34 | 2025 | 150.0 | 680 | , | • |
| 6 N Central Valley | Stockton, CA | N/A | 2023 | 132.0 | N/A | • | • |
| 7 Silicon Hill | Pflugerville, TX | N/A | 2023 | 100.0 | 350 | | |
| 8 Bat Cave | Mason, TX | N/A | 2021 | 100.5 | N/A | • | No |
| 9 Gambit | Angleton, TX | 6.24 | 2021 | 100.0 | 215 | | - |
| 10 Chisholm | Ft Worth, TX | 21.74 | 2021 | 100.0 | 840 | _ | |
| 11 Yadkins EC | Chesapeake, VA | 29.34 | Proposed | 100.0 | 775 | | No |
| 12 Roughneck | W. Columbia, TX | 4.55 | 2021 | 50.0 | 1,095 | , | - |
| 13 Vista | Vista, CA | 0.88 | 2023 | 40.0 | 50 | • | |
| 14 Outer Cape | Provincetown, MA | N/A | 2020 | 25.0 | 435 | | |
| 15 N. New York Energy | • | 10.47 | 2023 | 20.0 | 945 | • | |
| 16 West Chicago | Chicago, IL | 5 | 2015 | 20.0 | 430 | 450 | • |
| 17 McHenry | McHenry, IL | 2.75 | 2016 | 20.0 | 260 | 283 | No |
| 18 Plumstead | Cream Ridge, NJ | 14.39 | 2019 | 20.0 | 155 | 943 | 12 ft |
| 19 Rush Springs | Marlow, OK | N/A | 2020 | 10.0 | N/A | N/A | No |
| 20 Prospect | W. Columbia, TX | 2.3 | 2019 | 10.0 | 400 | 400 | Yes |
| 21 Brazoria | Brazoria, TX | 17.58 | 2020 | 10.0 | 130 | 438 | No |
| 22 Churchtown | Pennsville, NJ | 3.13 | Proposed | 10.0 | N/A | N/A | No |
| 23 Port Lavaca | Prt Lavaca, TX | 1.44 | 2020 | 10.0 | N/A | N/A | No |
| 24 Magnolia | Houston, TX | 0.87 | 2020 | 10.0 | 180 | 190 | Yes |
| 25 Rabbit Hill | Georgtown, TX | 5.99 | 2020 | 10.0 | 130 | 338 | Yes |
| 26 Asheville | Asheville, NC | 12.36 | 2020 | 9.0 | 130 | 452 | Yes |
| 27 Micanopy | Micanopy, FL | 22.5 | 2022 | 8.3 | 605 | 1,085 | No |
| 28 East Hampton | E. Hampton, NY | 17.58 | 2024 | 5.0 | 470 | 733 | Yes |
| 29 Montauk Energy | Montauk, NY | 1.63 | 2019 | 5.0 | N/A | N/A | Yes |
| 30 Little Field ESS | Staten Island, NY | 0.22 | 2023 | 4.3 | 40 | 84 | Yes |
| 31 Beebe | Wakefield, MA | N/A | 2019 | 3.0 | 150 | N/A | No |
| 32 Ozone Park | Queens, NY | 0.35 | 2018 | 3.0 | 30 | 203 | Yes |
| 33 Pomona | Rockland, NY | 28.5 | 2020 | N/A | 270 | 1196 | No |
| 34 Connolly | Decatur, TX | N/A | 2024 | 125.0 | 485 | 661 | No |
| 35 Callisto | Houston, TX | N/A | 2024 | 200.0 | 685 | 1,391 | N/A |

| | | Distance from | Average Distance |
|---------|----------|---------------------|------------------|
| | Capacity | Closest Home | Adjoining Home |
| Average | 72 MW | 390 | 654 |
| Median | 20 MW | 335 | 451 |
| High | 400 MW | 1,095 | 1,609 |
| Low | 3 MW | 30 | 84 |

I have also considered a subset of the data focusing on projects only from the Northeast which would be closest in proximity to the proposed project. As can be seen by comparing the subset to the larger set, there is a tendency towards average and median closest homes to be smaller in this subset, but there is also a larger percentage of projects including soundwalls. These two factors are reasonable as greater distances between projects and homes minimizes the need for a soundwall and vice versa.

The proposed closest home at the subject property is closer than the median closest home from this subset of comparables and the subject property is proposed to have a soundwall which is also consistent with this data.

Summary of Battery Data Texas Only

| # Name 0 Claire | City/State Baytown, TX | Acres 9.27 | Year Built Proposed | Capacity (MW) | | Average Distance Adjoining Home 131 | Soundwall |
|--------------------|-------------------------------|-------------------|----------------------------|------------------|---------------------|---|-----------|
| 4 Fort Watt | Fort Worth, TX | 47.94 | Proposed | 200.0 | 515 | 1,412 | N/A |
| 7 Silicon Hill | Pflugerville, TX | N/A | 2022 | 100.0 | 350 | N/A | No |
| 8 Bat Cave | Mason, TX | N/A | 2021 | 100.5 | N/A | N/A | No |
| 9 Gambit | Angleton, TX | 6.24 | 2021 | 100.0 | 215 | 243 | 8ft |
| 10 Chisholm | Ft Worth, TX | 21.74 | 2021 | 100.0 | 840 | 875 | No |
| 12 Roughneck | W. Columbia, TX | 4.55 | 2021 | 50.0 | 1,095 | N/A | No |
| 20 Prospect | W. Columbia, TX | 2.3 | 2019 | 10.0 | 400 | 400 | Yes |
| 21 Brazoria | Brazoria, TX | 17.58 | 2020 | 10.0 | 130 | 438 | No |
| 23 Port Lavaca | Prt Lavaca, TX | 1.44 | 2020 | 10.0 | N/A | N/A | No |
| 24 Magnolia | Houston, TX | 0.87 | 2020 | 10.0 | 180 | 190 | Yes |
| 25 Rabbit Hill | Georgtown, TX | 5.99 | 2020 | 10.0 | 130 | 338 | Yes |
| 34 Connolly | Decatur, TX | N/A | 2024 | 125.0 | 485 | 661 | No |
| 35 Callisto | Houston, TX | N/A | 2024 | 200.0 | 685 | 1,391 | N/A |
| | | | | | Distance from | Average Distance | |
| | | | | Capacity | Closest Home | Adjoining Home | |
| | Average | | | 79 MW | 457 | 661 | |
| | Median | | | 100 MW | 400 | 438 | |
| | High | | | 200 MW | 1,095 | 1,412 | |
| | Low | | | 10 MW | 130 | 190 | |

Market Imperfection

Throughout this analysis, I have specifically considered the influence of market imperfection on data analysis. Market imperfection is the term that refers to the fact that unlike a can of soup at the supermarket or in your online shopping cart, real estate cannot be comparison shopped for the best price and purchased at the best price for that same identical product. Real estate products are always similar and never identical. Even two adjacent lots that are identical in almost every way, have a slight difference in location. Once those lots are developed with homes, the number of differences begin to multiply, whether it is size of the home, landscaping, layout, age of interior upfit, quality of interior upfit, quality of maintenance and so on.

Neoclassical economics indicates a perfectly competitive market as having the following: A large number of buyers and sellers (no one person dominates the market), no barriers or transaction costs, homogeneous product, and perfect information about the product and pricing. Real estate is clearly not homogeneous. The number of buyers and sellers for a particular product in a particular location is limited by geography, financing, and the limited time period within a property is listed. There are significant barriers that limit the liquidity in terms of time, costs and financing. Finally, information on real estate is often incomplete or partial – especially at the time that offers are made and prices set, which is prior to appraisals and home inspections. So real estate is very imperfect based on this definition and the impact of this are readily apparent in the real estate market.

What appear to be near-identical homes that are in the same subdivision will often sell with slight variations in price. When multiple appraisers approach the same property, there is often a slight variation among all of those conclusions of value, due to differences in comparables used or analysis of those comparables. This is common and happens in every appraisal. Within each appraisal, after making adjustments to the comparables, the appraiser will typically have a range of values that are supported that often vary more than +/-5% from the median or average adjusted value.

Based on this understanding of market imperfection, it is important to note that very minor differences in value within an impact study do not necessarily indicate either a negative or positive impact. When the impacts measured fall within that +/-5%, I consider this to be within typical market variation/imperfection. Therefore it may be that there is a negative or positive impact identified if the impact is within that range, but given that it is indistinguishable from what amounts to the background noise or static within the real estate data, I do not consider indications of +/-5% to support a finding of a negative or positive impact.

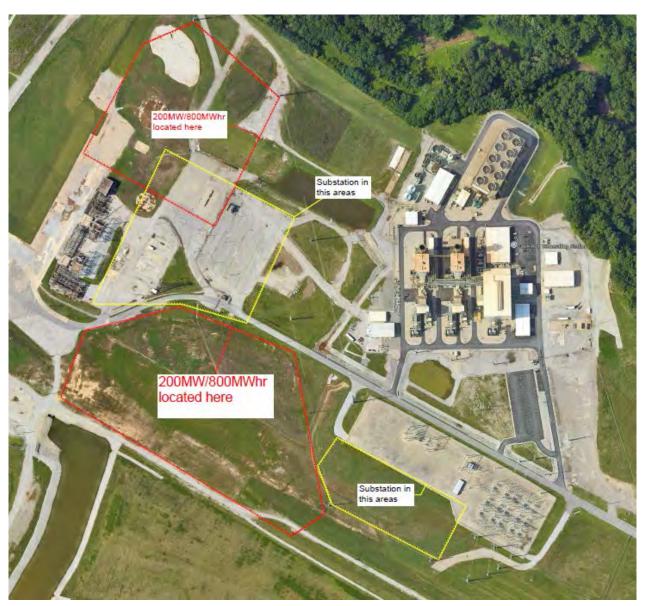
Impacts greater than that range are however, considered to be strong indications of impacts that fall outside of typical market imperfection. I have used this as a guideline while considering the impacts identified within this report.

III. Market Data

I considered the following battery storage facilities in a variety of states where I was able to identify adjoining residential home sales. These home sales were then compared to similar homes in the area that sold in the same time frame but were not in proximity to the BESS. This is called a paired sales analysis and I have used this to determine if there is any impact that could be attributed to the adjacency/proximity to the BESS.

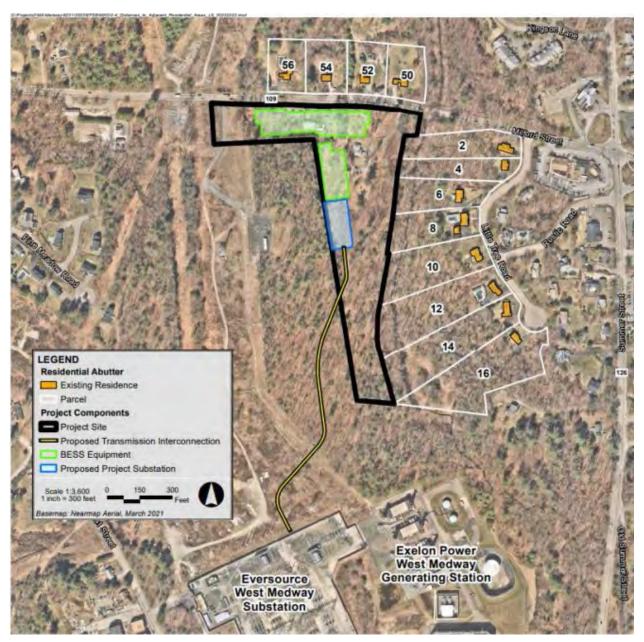
1 - Cane Run, Louisville, Kentucky

This 400 MW battery storage system is proposed for Louisville, Kentucky. This is to be located adjoining an existing powerplant as shown below. No market data was pulled from this as it is proposed and there is an existing power fossil fuel power plant collocated with it.



2 - Medway Grid, Medway Massachusetts

This 250 MW battery storage system is proposed for Medway, Massachusetts. This is located on a portion of 10.6 acres. The closest adjoining home will be 150 feet away to the north.



3 - Diablo Energy Storage System, Pittsburg, California

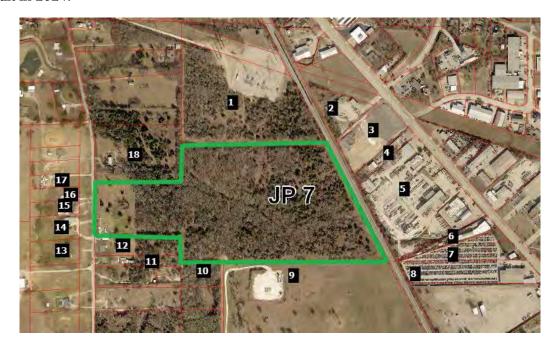
This 200 MW battery storage system is located on a parcel in Pittsburg, California with significant adjacency to industrial uses and residential uses. For these reasons it would be difficult to measure impacts due to the adjoining industrial uses that might also have an impact. Given that most of the adjoining uses are industrial a matched pair analysis is inappropriate but a Sale/Resale analysis is as the nearby industrial uses would be consistent both before and after the battery project.



The most recent and nearest sale that I identified is 401 Travis Court that is located to the southeast of the BESS at a distance of 605 feet from the nearest battery. The only sound barrier at the site is between 4 and 6 feet tall but there is an additional 6 foot wall at the rear of the homes as part of the subdivision separating the homes from the nearby industrial uses. This home sold on June 6, 2023 for \$665,000 for this 1,867 s.f., 2-story home, 2-car garage with 4 BR, 2.5 BA built in 2004 on a 0.10-acre lot. This same hold sold prior to the BESS announcement on July 28, 2017 for \$425,000. I have adjusted the 2017 sale upward based on the Federal Housing Finance Agency House Price Index for the growth in that market between those two dates, which indicates the home was expected to appreciate by 58%, or \$671,500. This is within 1% of the actual closed sales price which strongly supports a finding of no impact from the nearby BESS.

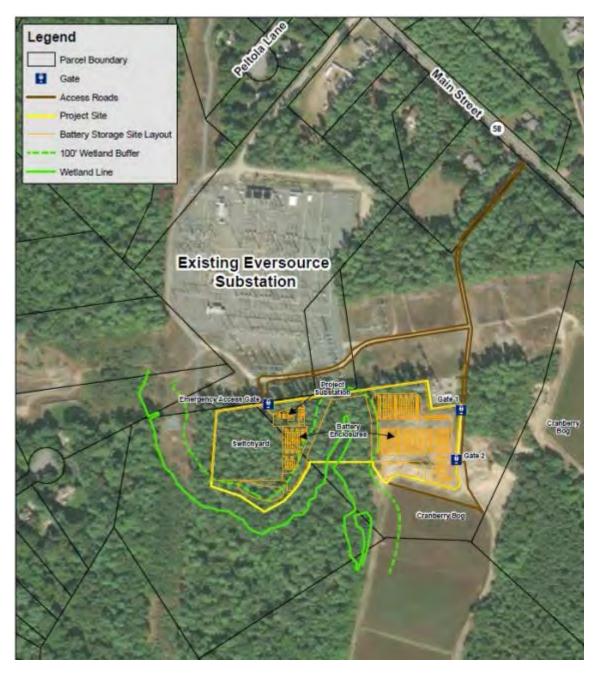
4 - Fort Watt Storage, Fort Worth, Texas

This $200 \ \text{MW}/400 \ \text{MWh}$ battery storage system is located near Fort Worth, TX and was proposed to be built in 2024.



5 - Cranberry Point Energy Storage, Carver, Massachusetts

This 150 MW battery storage system started construction in late 2023 and expected to be complete in the 2^{nd} quarter of 2025 near Carver, Massachusetts. This is located on 6 acres out of 34-acre parent tracts. The closest adjoining home is 680 feet away to the west.



6 - North Central Valley Energy Storage, Stockton, California

This 132 MW battery storage system is located near Stockton California in the San Joaquin Valley. The map below shows the approximate area as this became operational in August 2023 and no aerial imagery of the battery facility was available.



7 - Silicon Hill Storage, Pflugerville, Texas

This 100 MW battery storage system is located off Cameron Road, Pflugerville, Texas built in 2022. There have not been any adjoining home sales since it was built so no analysis is currently possible. The closest adjoining home is 350 feet from the BESS equipment.



8 - Bat Cave Energy Storage, Mason, Texas

This 100.5 MW battery storage system is located near Mason, Texas and was built in 2021.



Texas is a non-reporting state which makes data gathering more challenging without access to local MLS. The closest nearby home sale that I identified is 111 Orange Street to the north where the existing substation lies between the BESS and the home. This is a home that was built in 1926 on 2.09 acres and in fair condition. I did not attempt to run down any additional information as this home was on the market for over a year with substantial drops in asking price before closing, but I do not currently have access to what that closed price is but primarily the issue is that this home is challenging to compare to other properties due to the age but also the proximity to the existing substation which is 350 feet away. Any analysis relying on this home sale would have to be a Sale/Resale analysis as the substation proximity would be the same in both the Before and After, but the condition of the home would also have to be confirmed between those sales through a broker as any upfits, renovations, or deferred maintenance could be challenging on valuing an older home such as this.

9 - Gambit Energy Storage, Angleton, Texas

This 102.4 MW battery storage system is located off W. Live Oak Street, Angleton, Texas. This is a new facility and placed online in June 2021. This system is a good location as there are no other externalities adjoining it to potentially impact the analysis. The substation associated with this is located to the east along N. Walker Street.



The adjoining homes to the north were selling with new homes ranging from \$400,000 to \$600,000 in 2022.

The most recent adjoining home sale to the west was 852 Marshall Road that sold on April 5, 2021 and presumably they were aware of the battery storage facility as it would have been under construction at the time of sale. This brick ranch with 3 BR, 1 BA with 1,220 s.f. of gross living area and built in 1980 on 0.40 acres sold for \$165,000, or \$135 per s.f.

I have compared that sale to 521 Catalpa Street that sold on September 11, 2020 for \$155,000 for a 3 BR, 2 BA brick ranch with 1,220 s.f. built in 1973 with a single car garage. Adjusting this price upward by 9% for growth in the market for time, 3.5% for difference in age, downward by \$6,000 for the additional bathroom, and \$4,000 for the garage, the adjusted indicated value of this home is \$164,375, which is right in line with 852 Marshall Road and supports a finding of no impact on property value.

I have also compared that sale to 521 W Mimosa Street that sold on February 26, 2021 for \$150,000 for this brick ranch with 3 BR, 1.5 BA with 1,194 s.f. built in 1976. Adjusting this sale upward by 4% for growth in the market over time, upward 2% for difference in age, and downward by \$5,000 for the additional half bathroom, I derive an adjusted indication of \$154,000. This is 7%

less than the home price at 852 Marshall Road which suggests an enhancement due to proximity to the battery storage system.

I have also compared this sale to 1164 Thomas Drive that sold on May 20, 2020 for \$187,000 for this brick ranch with 2-car garage, 3 BR, 2 BA with 1,259 s.f. and built in 1998. Adjusting this upward by 13% for growth over time, downward by 9% for difference in age of construction, downward by \$8,000 for the garage, downward \$6,000 for the additional bathroom, I derive an indicated value of \$180,480. This is a 9% difference suggesting a negative impact on property value. However, this comparable required the largest amount of adjustments and is not considered as heavily as the other two comparables. This home is 18 years newer and with better bathroom situation as a 1-bathroom house is a significant issue for most buyers.

The second comparable considered required the least adjustment and suggests a positive impact on property value. The median indication is the first comparable which shows no impact on property value. Given this data set I conclude that the best indication from these matched pairs supports a finding of no impact on property value. The home at 852 Marshall is 180 feet from the project outline shown.

I also considered a Sale/Resale analysis on this home. This same home at 852 Marshall sold on April 20, 2016 at \$69,900. Adjusting this upward by 38% which is typical appreciation in this area based on the FHFA HPI indicates an expected appreciation to \$96,462. However, this home was completely renovated between those two dates so this analysis is not very useful other than to show that the home was updated and sold at a higher price despite being located next to the BESS.

10 - Chisholm Grid Energy Storage, Fort Worth, Texas

This 200 MW battery storage system is located at 9400 Asphalt Drive, Fort Worth, Texas. This is a new facility built in 2021 and in close proximity to those homes near the substation.

The property to the west of the BESS is an asphalt plant with a lot of vacant land separating the homes from the active plant. A Sale/Resale analysis would account for that impact, but there were no nearby sales that I was able to analyze.



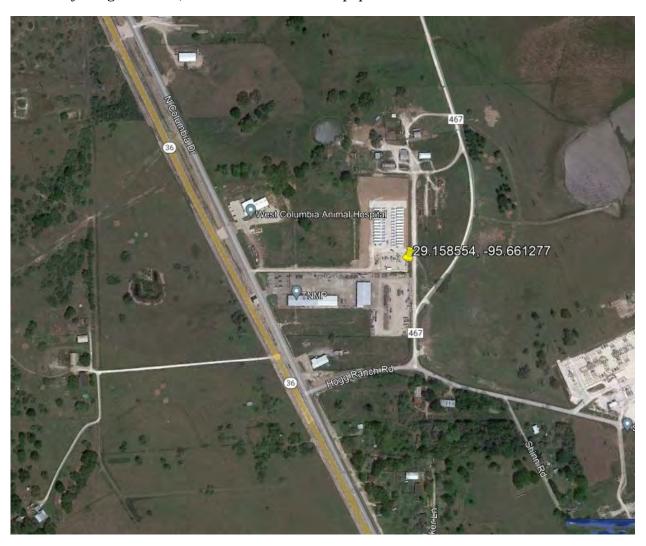
11 - Yadkins Energy Center, Chesapeake, Virginia

This 100 MW battery storage system is proposed to be located off George Washington Highway in Chesapeake, Virginia. This project is proposed to be built in 2025. The closest adjoining home will be 775 feet from the BESS equipment.



12 - Roughneck Storage, West Columbia, Texas

This 50 MW battery storage system is located off Hogg Ranch Road, West Columbia, Texas that was built in 2021. There have not been any adjoining home sales since it was built and commercial/industrial uses in the vicinity would make it challenging for analysis in any case. The closest adjoining home is 1,095 feet from the BESS equipment.



13 - Vista Energy Storage System, Vista, California

This 40 MW battery storage system is located off Olive Avenue, Vista, California. This facility has significant commercial development around it but also housing to the south as close as 50 feet from the closest equipment as shown in the aerial map below and an average distance of 98 feet.



I identified a sale at 508 Dove Circle that sold on April 3, 2023 for \$740,000 and is 100 feet from the nearest electrical equipment. This same home last sold on May 21, 2002 sold for \$258,000. The recent sale notes that the owner is a general contractor and kept the maintenance very well and the 2nd bath was upgraded. Based on the FHFA HPI this home was expected to appreciate over that time period from 2002 to 2023 by 177%, which works out to \$714,660. This is lower than the sales price in 2023, but that difference is readily attributable to the upgraded bathroom and supports a finding of no impact on property value due to the proximity of the BESS.

14 - Outer Cape Community, Provincetown, Massachusetts

This 25 MW battery storage system is located in Provincetown, Massachusetts. This adjoins an industrial building, small solar farm and small landfill. There are nearby houses to the east as close as 435 feet.



A home located at 72 Race Point Road, Provincetown sold on August 23, 2024 for \$1,400,000 for this 3,100 s.f. home with 3 BR, and 4 BA built in 2001 on a 0.16-acre lot. The prior sale of this home was on October 22, 2008 for \$625,000. Based on the FHFA HPI this home was expected to appreciate over this time difference by 113%, which works out to \$1,331,250, which is 5% less than what it actually sold for, This strongly supports a conclusion of no negative impact from the BESS. This home is 425 feet from the BESS.

The closest home sold on November 28, 2023 after the batteries were put in place for \$1,750,000 for this 2,454 s.f. home built in 2005 located at 64 Race Point Road. The most recent sale of this same home prior to the BESS was in 2002 which was just for the lot prior to construction of the home so I was not able to do any analysis on this.

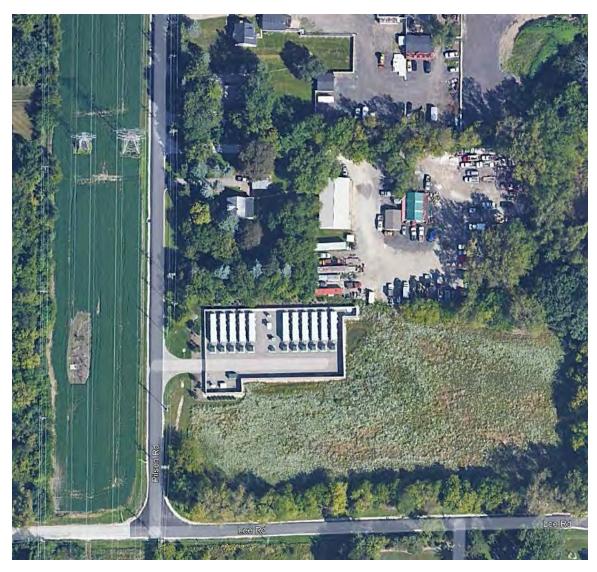
15 - North New York Energy, Burke, New York

This 20 MW battery storage system is located in Burke, New York and built in 2023. The closest adjoining home is 945 feet away.



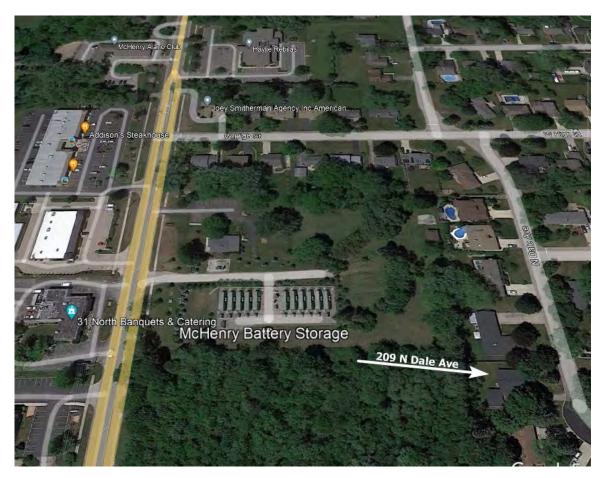
16 - West Chicago Battery Storage, Chicago, Illinois

This 19.8 MW battery storage system is located off Pilsen Road, Chicago, Illinois and built in 2015. This facility has condominium and single family housing to the north and single family housing nearby to the south, but also adjoining an outdoor storage area and a large powerline easement. I was not able to do any analysis on this site as there have been no recent sales identified.



17 - McHenry Battery Storage, McHenry, Illinois

This 19.8 MW battery storage system is located off Illinois Highway 31, McHenry, Illinois that was built around 2016. This is facility fronts on the highway but has rear adjacency to a number of houses.



I have considered the recent sale of 209 N Dale Avenue that adjoins the battery storage site and is 290 feet from the nearest equipment.

That home sold on June 30, 2021 for \$265,000 for a vinyl-siding ranch with 3 BR, 2.5 BA, built in 1960 with a gross living area of 1,437 square feet, or \$184.41 per s.f. The property has 5 attached garage spaces. As identified in the listing the home was completely renovated with stainless steel appliances and granite countertops. This was listed by Lynda Steidinger with Berkshire Hathaway HomeServices Starck Real Estate and the buyer's agent was Ivette Rodriguez Anderson with Keller Williams. The heavy renovations make it impossible to do a Sale/Resale analysis, so I have looked at paired sales instead.

The home directly across the street, 208 N Dale Avenue, sold on June 16, 2021 for \$275,000 for a cedar siding and stone ranch with 3 BR, 2.5 BA, built in 1961, with a gross living area of 1,446 s.f., or \$190.18 per s.f. This home also has 1,101 square feet of finished basement space that is currently used as an office but could be an additional bedroom. This home also has been updated and includes stainless steel appliances and granite counter tops.

The size difference is nominal and the additional 3-car garage bays at the 209 N Dale is considered to be balanced by the finished basement space at 208 N Dale, though the finished office space is

somewhat superior to garage space. But balancing those two factors out the difference in price per square foot is 3%. This is considered negligible and attributable to the slightly superior finished basement space and not any impact relative to the battery storage facility.

I also looked at 3802 Clover Avenue, which is two blocks to the north. This stone and siding ranch with 3 BR, 2 BA, built in 1956, with a gross living area of 1,200 s.f. sold on October 21, 2021 for \$231,000 or \$192.50 per s.f. The property has been updated with a new kitchen and a new bay window and includes a partially finished basement with an additional bathroom in it and the total basement area is an additional 1,200 s.f. This is the smallest home in the neighborhood that I found and it further illustrates that the price per square foot typically goes up as the size goes down. Adjusting this gross sale price upward by \$36,498 for the smaller size based on 80% of the price per square foot for this purchase, I derive an adjusted sales price to compare to the subject property of \$267,498. I consider the basement to balance out the extra garage space at the subject. This indicates a difference of 1% from the purchase price of the 209 N Dale Avenue, which is attributable to the 4 months difference in time. I consider this comparable to further support a finding of no impact on value.

There are numerous recent home sales in the neighborhood ranging from \$172,000 to \$306,000, but most of these homes are also over 2,000 square feet in size. The subject property sold for more per square foot than most of these other sales partly due to the smaller overall size, partly due to the significant renovations, and partly due to the additional garage space. Still, this shows that the 209 N Dale Avenue sale is not being impacted by the battery storage facility and has in fact been updated above what is typical for the neighborhood, though given the similar updates at 208 N Dale Avenue, this may be the trend for the area.

The two sales compared to the 209 N Dale Avenue sale supports a finding of no impact on property value due to the battery storage facility.

I also looked at a more recent sale of 205 N Dale Avenue which adjoins 209 N. Dale to the south. This home sold on May 31, 2023 for \$255,000 for this 3 BR, 2 BA home with 1,592 s.f. with a 2-car garage built in 1962 on a 0.40-acre lot. This home sold earlier that year for significantly less and underwent heavy renovations. The property was advertised as backing up to woods, it is 1 lot off adjacent to the BESS and shows no sign of impact. The heavy renovations make it difficult to compare this to other non-updated homes in the area, but someone purchased it for updating and sold it for more after the BESS was built.

Another home located at 3815 W High Street sold on October 28, 2022 for \$260,000. This home also adjoins a medical office which makes matched pair analysis difficult and the prior sale is much older and not suitable for Sale/Resale analysis.

Another home located at 2813 W High Street sold on April 14, 2022 for \$180,000. This home also adjoins a medical office and was sold "as-is" and therefore not appropriate for analysis.

18 - Plumsted Energy Storage, Cream Ridge, New Jersey

This 19.8 MW battery storage system is located on Monmouth Road, Cream Ridge, New Jersey and built in 2019. There is only one adjoining home as shown in the image, but it is located just 148 feet from the nearest piece of equipment and 96 feet from the fence line. There were existing trees, but they were supplemented with a 12-foot wooden privacy fence with smaller evergreens between the fence and property line. The privacy fence at this location is oversized as the battery units include HVAC units on top of the battery pods that extend the height of the units greater than required at the subject property. The road frontage was not landscaped and chain link fencing was used on the rest of the property.

The adjoining home at 797 Monmouth Road has not sold recently and no further analysis is possible at this site.



19 - Rush Springs Storage, Marlow, Oklahoma

This 10 MW battery storage system is located near a windfarm on SR 1600 near Marlow, Oklahoma and built in 2020. There have not been any adjoining home sales since it was built so no analysis is currently possible. The closest adjoining home is 660 feet from the BESS equipment.



20 - Prospect Energy Storage System, Columbia, TX

This 10 MW battery storage system is located on a parcel adjoining a large substation in W. Columbia, TX. The only adjoining home is 400 feet away. This home has not sold since the BESS was completed in 2019. Furthermore, this home has an unobstructed view of the substation which would make it a difficult home for impact analysis.



21 - Brazoria Energy Storage System, Brazoria, TX

This 9.95 MW battery storage system is located on a parcel adjoining multiple homes within 150 feet of the battery equipment. There have been no recent sales since this was built in 2020.



22 - Churchtown Battery Storage, Pennsville, New Jersey

This 10 MW battery storage system is proposed to be located off N. Broadway, Pennsville, NJ. Given the large substation, adjoining baseball fields and religious facilities this would be a challenging site for an impact analysis in any case.



23 - Port Lavaca BESS, Port Lavaca, TX

This 9.9 MW battery storage system is located in Port Lavaca, Texas. It was built in 2020 and is entirely surrounded by agricultural and utility uses.



24 - BRP Magnolia BESS, Houston, TX

This 9.95 MW battery storage system is located off Floyd Road, League City, near Houston, Texas and built in 2020. There have not been any adjoining home sales since it was built so no analysis is currently possible. The adjoining homes are between 180 and 200 feet from the BESS equipment.



25 -Rabbit Hill Storage, Georgetown, TX

This $10~\mathrm{MW}$ battery storage system is located near Georgetown, TX was built in $2020~\mathrm{with}$ the closest home being $130~\mathrm{feet}$ away.



26 - Asheville Energy Storage System, Asheville, NC

This 9 MW battery storage system is located on a parcel with a substation built in 2020 (substation was bult much earlier). This facility has significant residential development around it but no recent sales to consider.



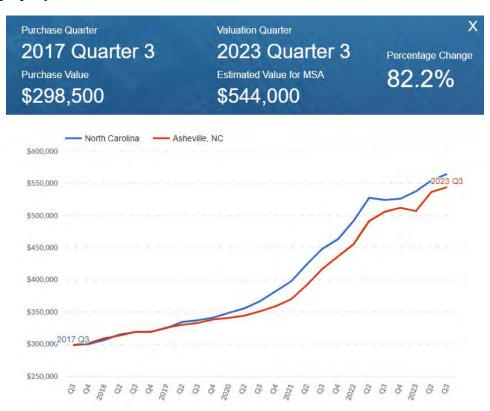


There is a nearby home sale that is located on Tax Parcel 8047 (just below the identifier for Parcel 9). This home is 550 feet from the nearest battery equipment and most of that distance is heavily wooded. This home has a street address of 95 Forest Lake Drive, Asheville, NC and it sold on April 26, 2022 for \$510,000 for this 4 BR/3 BA ranch with 1,931 square feet including the daylight basement area. The home also has a 2-car garage. I did not attempt a paired sale as this home has no visibility of the BESS despite the proximity and arguably has a better view with less screening to the substation, which is also closer to the home.

Similarly, new homes are being built to the south on Rangley Drive with prices ranging from \$431,000 to \$566,000. These homes include those that back up to the Parcels 11 through 14 in the adjacent parcel map.

Also, Parcel 4 sold in March of 2022, but it has the substation between it and the BESS, which makes it challenging to draw conclusions from and I attempted no analysis.

I did look at 129 Graham Lane, Asheville, which is adjoining Parcel 11. It sold on November 6, 2023 for \$550,000 for this 4 BR, 3 BA home with 2,913 s.f. with a 2 car garage built in 1970 on a 1.21-acre lot. This home last sold on August 2, 2017 for \$298,500 prior to the BESS being constructed. Adjusting this earlier sale using the Federal Housing Finance Agency Home Price Index over that time period, homes in the area indicate that the home should have appreciated to \$544,000 as shown below. The home actually sold for slightly more than this which supports a finding of no impact on property value. This home was 510 feet from the BESS and was screened.



27 - Micanopy BESS, Micanopy, FL

This 8.25 MW battery storage system is located at 304 NE US Highway 441 in Micanopy Florida on a 2.53 acre parcel for an 8.25 MW BESS with an 11.7 MWh capacity built in 2022. The closest adjoining home is 250 feet away. I did not identify any recent home sales.



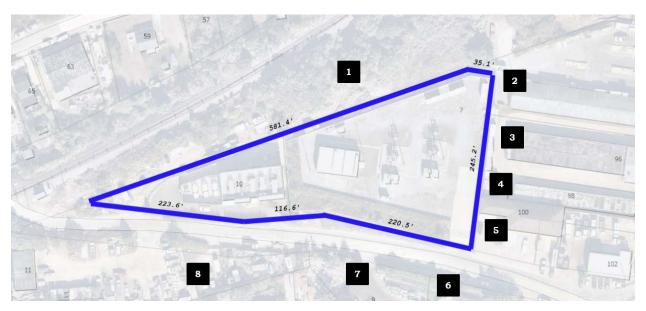
28 - East Hampton Energy Storage System, East Hampton, New York

This 5 MW battery storage system is located on a parcel with a substation and a natural gas peaker plant built in 2024. This makes it difficult to use for analysis given the multiple uses on this parcel, but I have included a visual of homes in the general area that have sold recently for reference. There is significant wooded acreage separating this BESS and nearby homes.



29 - Montauk Energy Storage System, Suffolk County, New York

This 5 MW battery storage system is located on a 1.63-acre parcel and built in 2019 in Montauk, Suffolk County, New York. Most of the adjoining uses are industrial with a railroad to the north which makes it difficult to make any analysis from this site.



30 - Littlefield Energy Storage System, Richmond County, New York

This 4.3 MW battery storage system is located on a 4.25-acre parcel and built in 2023 in Staten Island, Richmond County, New York. Adjoining uses are a mix of commercial and residential. The closest adjoining home is 40 feet from the closest electrical equipment.



A home located at 89 Littlefield Avenue sold on October 10, 2024 for \$695,000 which is 100 feet from the BESS, but also a unit of a duplex that adjoins a gas station but on the far side from the gas station. This same home sold previously on April 27, 2021 for \$420,000. Based on the FHFA HPI this home should have appreciated at 28% over this time period, which works out to \$537,600, which is well below the actual sales price. However, the listing indicates that this home was entirely updated, which makes a Sale/Resale analysis unreliable. I reached out to the listing agent Gennady Gary Papirov (917-856-2012) with Homes R Us Realty of NY for comments. When I asked if the nearby BESS had any impact on the marketing or sales price, he indicated that the adjoining gas station had a significant impact. I asked him again about the BESS and he said that the gas station was the main impact and had no comments on the BESS. I also reached out to the buyer's agent Malic Klobucista with Better Homes and Gardens Real Estate Safari (malic1968@yahoo.com, or 973-296-9498).

31 - Beebe Substation Battery Storage, Wakefield, Massachusetts

This 3 MW battery storage system is in Wakefield, Massachusetts built in 2019. The closest adjoining home is 150 feet away to the southwest.



I looked at 4 Twilight Road to the south that is 600 feet away. It sold in September 2023, but that home is closer to a large powerline easement that makes it difficult to complete a paired sales analysis.

I also looked at 22 Pheasant Wood Drive that sold on August 2023 for \$1,050,000 for a 3,038 s.f. brick ranch with 3 BR, 3.5 BA, 2 car garage built in 1992 on 0.33 acres. This home has a finished basement with a full in-law suite with kitchen. The price per square foot works out to \$345.62. This home is 480 feet to the north of the battery system.

I have compared this to 7 June Circle that sold December 2023 for \$1,109,000 for a 3,473 s.f. 2 story home built in 1971 on 0.36 acres. The home has 5 BR, 4.5 BA, 2 car attached garage and 2 car detached garage with finished basement and a pool. The purchase price works out to \$319.32 per s.f. Adjusting this price upward by 10% for the difference in year built, this price is adjusted to \$351.24 per s.f. and multiplying that by the square footage at 22 Pheasant Wood Drive works out to \$1,067,067. This is within 1.6% of the Pheasant Wood sale and supports a finding of no impact on value.

32 - Ozone Park Batteries, Queens, New York

This system is located on 99th Street in Jamaica, Queens, New York. The below image shows the battery pack parcel outlined in red with a bowling alley to the north, a school to the south and homes to the east and west as well as a church to the west. Based on aerial imagery, this site was installed in early to mid-2018.

The two closest structures are the school at 65 feet and a church at 30 feet from the batteries. The nearby homes are on the opposing blocks, but the proximity to the school does illustrate a high confidence in public safety related to the battery facility and acceptance within that community.



I looked at a sale at 10726 101st Street that sold on October 9, 2018, after the battery storage facility was installed. This home is 345 feet from the closest battery and has a very obstructed view of that area based on the shrubs around the battery storage site as well as a strip of landscape greenery between the two sites. The sales price was \$600,000 for this 3 BR/1.5 BA home that was built in 1930 on a 0.06-acre site.

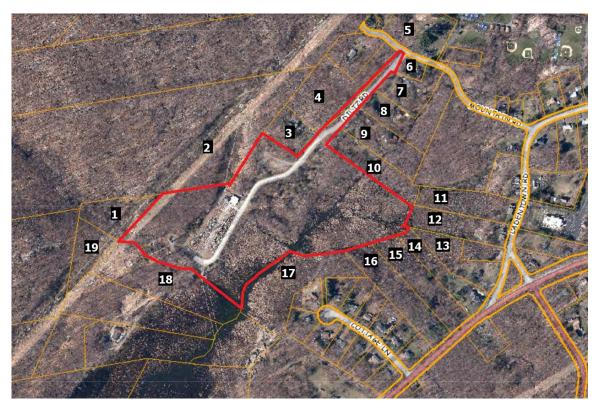
I compared this to a similar home built in 1930 in the same style and same size that sold on the same day at 10762 101st Street on October 9, 2018 for \$590,000. This home is just down the street but further from the battery storage system and sold on the same day for \$10,000 less. The proximity to the battery does not correlate to value impact in this instance as the home further away sold for less. This second home is across the street from the three-story John Adams High School which likely accounts for the lower price for this second property compared to the first which was adjacent to the same school, but not across from the building itself.

The matched pairs support a finding of no impact on value due to proximity to the battery system.

I identified a sale at $10624~98^{th}$ Street that sold on November 13, 2023 for \$1,150,000. This home last sold on August 26, 2015 for \$485,000. Considering the FHFA HPI this price point should have appreciated by 62% over that time frame to \$785,700. However, it appears this home was heavily renovated and it does not provide a credible analysis and I will not rely on this sale as I was not able to speak to a broker about this transaction.

33 - KCE NY 3/Pomona Batteries, Rockland County, New York

This battery storage system is located at 23 Diltz Road, Pomona, Rockland County, New York and built in 2020. This location is more remote than the other system with greater distances separating homes from batteries, but all of the adjoining uses are residential or park.



This battery site is located at the end of a road for estate-like homes on large acreage adjoining or in close proximity to Harriman State Park. There are some sales on Dritz Road adjoining the battery site and none of the broker statements identify that as a concern. But given the park, the Mahwah River exposure it is difficult to use these sales for matched pairs as there are too many unique factors and matched pairs require one unique factor.

I identified an October 11, 2022 sale of adjoining Parcel 4 that sold for \$500,000 for a 4.57-acre vacant estate lot. This home adjoins Harriman State Park and the listing makes no mention of the nearby battery energy storage facility.

The site shows harmonious use in connection with residential uses. The closest identified home is 270 feet.

34 - Connolly BESS, Decatur, TX

This battery storage system is located at 2116 County Rd 4511, Decatur, TX 76234 and was built in November 2024 but operational in 2025.



I identified a sale of a home at 5046 County Road 4010, Decatur for 2.62 acres of unimproved land on February 18, 2025 for \$125,000. This same property sold previously on March 27, 2023 for \$117,900. I considered a Sale/Resale analysis looking at the FHFA House Price Index and applied in to appreciation for this lot over that time period, which indicated it should have appreciated to \$123,260. The lot sold for \$125,000 after the project was built, which strongly supports a finding of no impact. The likely homesite on this lot is 630 feet based on the homes built on either side of this lot.



35 - Callisto BESS, Houston, TX

This battery storage system is located off Hiram Clarke Road, in Houston, Texas with 200 MW capacity. This project has industrial buildings and electrical equipment all around it, which makes it challenging to use this for analysis. There are apartments to the west of the industrial buildings and single family homes to the east.



Summary

| | | | | | Approx | | | | Adj. Sale | | Sound |
|------|------------|--------------|-------|-----------|----------|------------------|--------|-------------|-------------|-----------|-------|
| Pair | BESS | City | State | мw | Distance | Address | Date | Sale Price | Price | % Diff | W all |
| 1 | Diablo | Pittsburg | CA | 200 | 605 | 401 Travis | Jun-23 | \$665,000 | | | 4 ft |
| | | | | | | 401 Travis | Jul-17 | \$425,000 | \$671,500 | -1% | |
| 2 | Gambit | Angleton | TX | 102.4 | 180 | 852 Marshall | Apr-21 | \$165,000 | | | 8 ft |
| | | | | | | 521 Catalpa | Sep-20 | \$155,000 | \$164,375 | 0% | |
| 3 | Vista | Vista | CA | 40 | 100 | 508 Dove | Apr-23 | \$740,000 | | | Yes |
| | | | | | | 508 Dove | May-02 | \$258,000 | \$714,660 | 3% | |
| 4 | Outer Cape | Provincetown | MA | 25 | 425 | 72 Race Point | Aug-24 | \$1,400,000 | | | Yes |
| | | | | | | 72 Race Point | Oct-08 | \$625,000 | \$1,331,250 | 5% | |
| | McHenry | McHenry | IL | 20 | 290 | 209 N Dale | Jun-21 | \$265,000 | | | No |
| | | | | | | 3802 Clover | Oct-21 | \$231,000 | \$267,498 | -1% | |
| | Asheville | Asheville | NC | 9 | 510 | 129 Graham | Nov-23 | \$550,000 | | | Yes |
| | | | | | | 129 Graham | Aug-17 | \$298,500 | \$544,000 | 1% | |
| 7 | Beebe | Wakefield | MA | 3 | 480 | 22 Pheasant Wood | Aug-23 | \$1,050,000 | | | No |
| | | | | | | 7 June Cir | Dec-23 | \$1,109,000 | \$1,067,067 | -2% | |
| 8 | Ozone | Jamaica | NY | 3 | 345 | 10726 101st | Oct-18 | \$600,000 | | | Yes |
| | | | | | | 10762 101st | Oct-18 | \$590,000 | \$590,000 | 2% | |
| | | | | | | | | | | | |
| | | | Comp | arable St | ats | | | | | | |
| | | | | | Avg. | | | | | Indicated | |
| | | | | МW | Distance | | | | | Impact | |
| | | | Avg | 50.30 | 367 | | | | Average | 1% | |
| | | | Med. | 22.50 | 385 | | | | Median | 1% | |
| | | | High | 200.00 | 605 | | | | High | 5% | |
| | | | Low | 3.00 | 100 | | | | Low | -2% | |

I was able to complete 4 Sale/Resale analysis and 4 Matched Pair analysis as shown in the chart below. The range of impacts are -2% to +5% with an average and median impact of +1%. This is a very typical range of variation in market data and does not suggest a positive impact on property value, but instead suggests no impact.

I consider the Sale/Resale analysis data points to be the stronger data points as they only require a time adjustment and that time adjustment is linked to the Federal Housing Finance Agency House Price Index for that area and therefore has no appraiser judgement involved.

The Sale/Resale analysis set of data has impacts of -1% to +5% with an average of +2% and median of +2%, which trends slightly higher than the larger set or the matched pair set, but still within typical market deviation.

I also communicated with a broker involved in the sale of a home within 100 feet of Littlefield Energy Storage System in Staten Island who noted that the BESS was not a significant factor in the decision process.

Of the 8 projects identified, 6 had sound walls. The adjoining home prices range from \$165,000 to \$1,400,000.

The distance from these sales show a distance from home to BESS equipment ranges from 100 feet to 605 feet with an average distance of 367 feet and a median distance of 385 feet.

The sales data supports a finding of no impact on property value for homes ranging from 100 to 600 feet from the nearest equipment with a median distance of 345 feet.

The closest home to the proposed facility is 175 feet. Two of the eight paired sales are closer than this distance or at a similar distance.

The most similar proximity is the Gambit project which has a sale of a home at 180 feet showing no impact on property value. This project has minimal landscaping but does have a soundwall.

I conclude that based on the comparable and data presented that the proposed facility will not have a negative impact on adjoining property values. Furthermore, there are examples in the data set of homes that are closer than that distance to batteries which reinforces the opinion developed based on the paired sales analysis and sale/resale analysis.

There are nearby industrial uses and there are metal storage buildings on a number of the adjoining residential uses.

I note that an article published in Summer 2016 in The Appraisal Journal by Ted Tatos, Mark Glick, PHD, JD and Troy A. Lunt, MAI titled **Property Value Impacts from Transmission Lines, Substransmission Lines, and Substations** addresses substations in particular. They measured impacts around substations with value impacts for projects less than 50 meters and impacts for projects greater than 50 meters between home and substations. At greater than 50 meters they found no impact and at less than 50 meters they found -2.92% impact on home values. Given that 50 meters would be 164 feet and the proposed electrical equipment will be 175 feet, I consider that to support the conclusion of no impact.

IV. Specific Factors Related To Impacts on Value

I have completed a number of Impact Studies related to a variety of uses and I have found that the most common areas for impact on adjoining values typically follow a hierarchy with descending levels of potential impact. I will discuss each of these categories and how they relate to a battery energy storage system.

- 1. Hazardous material
- 2. Odor
- 3. Noise
- 4. Traffic
- 5. Stigma
- 6. Appearance

1. Hazardous material

Typically, where hazardous material presents an impact on adjoining or nearby property values is due to pollution, risk of spillage, or other impacts that could get into the soil, water table, or into the air. Examples include heavy industrial uses, coal burning uses, or even some heavy agricultural uses.

According to Ms. Judy McElroy, president of Fractal Energy out of Austin Texas, she has been studying battery storage systems since 2012. She indicated that the risk of fire is very limited and that they typically use a closet system as a failsafe to contain and control if a fire did occur. She indicated that any of the gases that would escape from such a fire would be similar to the chemicals that would be released if your kitchen garbage caught on fire and therefore no risk to the surrounding properties even in such an extreme situation.

A battery storage facility presents no potential hazardous waste byproduct as part of normal operation. According to Ms. McElroy, there is no risk to the soils, water supply, or air from the operation of a battery storage facility.

The EPRI Battery Energy Storage System Failure Incidence Database was initiated in 2021 as part of BESS safety research and tracks data back to 2018 globally. The following chart shows that while incident rates are relatively consistent across the time period, the actual failure rate has dropped precipitously on a failure per GW. So, despite substantial growth of over 8 times the GW installed since 2020 to 2023, the failure rate is dropping.



Based on that information I conclude that the proposed battery storage system does not have the characteristics of a hazardous material byproduct and no related external obsolescence on adjoining property value.

2. Odor

Odor is the next category that has the second highest potential impact on nearby property values. Odor is an impact often considered with wastewater treatment facilities, solid waste facilities, manufacturing, and related uses. There is no significant odor related to a battery storage system and therefore no impact on adjoining or nearby properties related to odor.

3. Noise

Noise is the next category that has the next highest potential for impact on property values. Noise impacts are found near airports, railroads, heavy industry, or other significant generators of noise including outdoor music venues and the like.

I have reviewed three different noise studies by three different experts on this topic specific to BESS, which all support a finding of no impact on property value related to noise concerns.

The systems shown in the market data include a system adjoining a school, a church, and in close proximity to numerous homes including rural homes near park land. I conclude that the battery storage system is not a significant contributor to noise and therefore would not have a negative impact on adjoining property values.

4. Traffic

Traffic impacts come from traffic patterns related to a site that could cause queuing outside the property or putting too much new traffic within a confined area.

The battery storage system would be remotely monitored and other than occasional maintenance would not have a significant number of trips per day. In fact, it would have fewer trips per day than

a single-family dwelling. I therefore conclude that traffic related to this use will not have a negative impact on adjoining property values.

5. Stigma

There is a possibility of stigma associated with battery storage facilities, but again the data presented shows no impact on property value which suggests this possibility is low or not significant enough to impact property value.

Stigma is most often associated with adult establishments and would not typically be connected with infrastructure like this use.

6. Appearance

Appearance or viewshed impacts are typically more for scenic areas where there could be premiums for a view, but also include negative impacts related to less aesthetic uses in proximity to housing. This is a category that could be considered for a battery storage facility.

However, the boxes will be screened by the proposed landscaped buffer. The distances to the nearest homes are further than what was identified in all of the other BESS examples, which substantially mitigates visual impacts even if there were not a landscaping screen.

Substations are much taller and harder to effectively screen, whereas the proposed battery storage use would be lower to the ground.

Given the similar use of screens for taller substations, I consider this a good mitigation method for the appearance of the subject property.

Whenever you consider the impact of a proposed project on viewshed or what the adjoining owners may see from their property it is important to distinguish whether or not they have a protected viewshed or not. Enhancements for scenic vistas are often measured when considering properties that adjoin preserved open space and parks. However, adjoining land with a preferred view today conveys no guarantee that the property will continue in the current use. Any consideration of the impact of the appearance requires consideration of the wide variety of other uses a property already has the right to be put to which could include significant industrial structures.

V. Conclusion

The proposed use of the subject property is consistent with adjoining industrial, residential and agricultural uses as shown by the similar projects. They also show compatibility with schools, churches, homes, and parks.

The market data in New York as well as Massachusetts and other states illustrate that the battery storage facilities had no impact on the nearby home sales prices at ranges as close as 100 feet with a wall. The closest home at the subject property will be 175 feet and has an existing vegetated screen.

The breakdown of potential factors that cause a negative impact (or external obsolescence) on adjoining property value shows that the only area for consideration is the appearance, which is well addressed through the landscaping and setbacks. Landscaping was a mitigating factor used with many of the projects identified.

Based on those various considerations, I conclude that there is no reasonable basis to anticipate a negative impact on adjoining property value.



Richard C. Kirkland, Jr., MAI, ARA 9408 Northfield Court
Raleigh, North Carolina 27603
Mobile (919) 414-8142
rkirkland2@gmail.com
www.kirklandappraisals.com

| PROFESSIONAL EXPERIENCE | |
|--|----------------|
| Kirkland Appraisals, LLC, Raleigh, N.C. | 2003 – Present |
| Commercial appraiser | |
| Hester & Company, Raleigh, N.C. | 1006 0000 |
| Commercial appraiser | 1996 – 2003 |
| PROFESSIONAL AFFILIATIONS | |
| MAI (Member, Appraisal Institute) designation #11796 | 2001 |
| ARA (American Society of Farm Managers and Rural Appraisers) | 2025 |
| NC State Certified General Appraiser # A4359 | 1999 |
| VA State Certified General Appraiser # 4001017291 | 1000 |
| SC State Certified General Appraiser # 6209 | |
| KY State Certified General Appraiser # 5522 | |
| TN State Certified General Appraiser # 6240 | |
| FL State Certified General Appraiser # RZ3950 | |
| GA State Certified General Appraiser # 321885 | |
| MI State Certified General Appraiser # 1201076620 | |
| PA State Certified General Appraiser # GA004598 | |
| OH State Certified General Appraiser # 2021008689 | |
| IN State Certified General Appraiser # 2021000059 | |
| IL State Certified General Appraiser # 553.002633 | |
| LA State Certified General Appraiser # APR.05049-CGA | |
| TX State Certified General Appraiser # 1380528 G | |
| ND State Certified General Appraiser # CG-224129 | |
| OR State Certified General Appraiser # C0-224129 | |
| ok state certified General Appraiser # C001003 | |
| | |
| EDUCATION | |
| Bachelor of Arts in English, University of North Carolina, Chapel Hill | 1993 |
| CONTINUING EDUCATION | |
| Valuation of Residential Solar | 2025 |
| Fair Housing Bias and Discrimination | 2025 |
| The Cost Approach | 2025 |
| Uncovering and Valuing Current Luxury Home Trends | 2025 |
| · · · · · · · · · · · · · · · · · · · | 2023 |
| Uniform Standards of Professional Appraisal Practice Update | |
| ASFMRA Integrated Approaches to Value (A360) | 2024 |
| ASFMRA Best in Business Ethics | 2023 |
| Appraising Natural Resources Series – Oil, Gas & Minerals | 2023 |
| Appraisal of Industrial and Flex Buildings | 2023 |
| Commercial Land Valuation | 2023 |

| Fair Housing, Bias and Discrimination | 2023 |
|---|------|
| Pennsylvania State Mandated Law for Appraisers | 2023 |
| What NOT to Do (NCDOT Course) | 2023 |
| The Income Approach – A Scope of Work Decision | 2023 |
| Valuation of Residential Solar | 2022 |
| Introduction to Commercial Appraisal Review | 2022 |
| Residential Property Measurement and ANSI | 2022 |
| Business Practices and Ethics | 2022 |
| Uniform Standards of Professional Appraisal Practice Update | 2022 |
| Sexual Harassment Prevention Training | 2021 |
| Appraisal of Land Subject to Ground Leases | 2021 |
| Michigan Appraisal Law | 2020 |
| Uniform Standards of Professional Appraisal Practice Update | 2020 |
| Uniform Appraisal Standards for Federal Land Acquisitions (Yellow Book) | 2019 |
| The Cost Approach | 2019 |
| Income Approach Case Studies for Commercial Appraisers | 2018 |
| Introduction to Expert Witness Testimony for Appraisers | 2018 |
| Appraising Small Apartment Properties | 2018 |
| Florida Appraisal Laws and Regulations | 2018 |
| Uniform Standards of Professional Appraisal Practice Update | 2018 |
| Appraisal of REO and Foreclosure Properties | 2017 |
| Appraisal of Self Storage Facilities | 2017 |
| Land and Site Valuation | 2017 |
| NCDOT Appraisal Principles and Procedures | 2017 |
| Uniform Standards of Professional Appraisal Practice Update | 2016 |
| Forecasting Revenue | 2015 |
| Wind Turbine Effect on Value | 2015 |
| Supervisor/Trainee Class | 2015 |
| Business Practices and Ethics | 2014 |
| Subdivision Valuation | 2014 |
| Uniform Standards of Professional Appraisal Practice Update | 2014 |
| Introduction to Vineyard and Winery Valuation | 2013 |
| Appraising Rural Residential Properties | 2012 |
| Uniform Standards of Professional Appraisal Practice Update | 2012 |
| Supervisors/Trainees | 2011 |
| Rates and Ratios: Making sense of GIMs, OARs, and DCFs | 2011 |
| Advanced Internet Search Strategies | 2011 |
| Analyzing Distressed Real Estate | 2011 |
| Uniform Standards of Professional Appraisal Practice Update | 2011 |
| Business Practices and Ethics | 2011 |
| Appraisal Curriculum Overview (2 Days – General) | 2009 |
| Appraisal Review - General | 2009 |
| Uniform Standards of Professional Appraisal Practice Update | 2008 |
| Subdivision Valuation: A Comprehensive Guide | 2008 |
| Office Building Valuation: A Contemporary Perspective | 2008 |
| Valuation of Detrimental Conditions in Real Estate | 2007 |
| The Appraisal of Small Subdivisions | 2007 |
| Uniform Standards of Professional Appraisal Practice Update | 2006 |
| Evaluating Commercial Construction | 2005 |
| Conservation Easements | 2005 |
| Uniform Standards of Professional Appraisal Practice Update | 2004 |
| Condemnation Appraising | 2004 |
| Land Valuation Adjustment Procedures | 2004 |
| Supporting Capitalization Rates | 2004 |
| | |

| Uniform Standards of Professional Appraisal Practice, C | 2002 |
|---|------|
| Wells and Septic Systems and Wastewater Irrigation Systems | 2002 |
| Appraisals 2002 | 2002 |
| Analyzing Commercial Lease Clauses | 2002 |
| Conservation Easements | 2000 |
| Preparation for Litigation | 2000 |
| Appraisal of Nonconforming Uses | 2000 |
| Advanced Applications | 2000 |
| Highest and Best Use and Market Analysis | 1999 |
| Advanced Sales Comparison and Cost Approaches | 1999 |
| Advanced Income Capitalization | 1998 |
| Valuation of Detrimental Conditions in Real Estate | 1999 |
| Report Writing and Valuation Analysis | 1999 |
| Property Tax Values and Appeals | 1997 |
| Uniform Standards of Professional Appraisal Practice, A & B | 1997 |
| Basic Income Capitalization | 1996 |