

Greenidge Generation LLC:

Economic Impact in the
Town of Torrey, Yates County
and New York State

MAY 2021





Appleseed is a New York City-based consulting firm, founded in 1993, that provides economic research and analysis and economic development planning services to government, non-profit and corporate clients.

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EXECUTIVE SUMMARY

From 2014 through 2021, Greenidge Generation LLC has undertaken a comprehensive transformation of a former coal-fired plant in Dresden, New York.

That transformation has resulted in a significant and positive economic impact across the Town of Torrey, Yates County and for the State of New York as a whole.

- Notably, during the very worst months of the COVID-19 pandemic, the presence and growth of Greenidge Generation’s vertically integrated power generation and data processing center (cryptocurrency mining) facility has benefitted hundreds of local individuals and businesses, when such support was needed most.
- From 2014 through 2020, Greenidge Generation’s capital investments in transformation of its power plant and in development of a new data processing center at the same site **directly and indirectly supported 183 jobs in New York State in construction and related industries alone, with nearly \$13.4 million in employee earnings.**
- In 2020, Greenidge Generation employed 27 people (26 of whom worked full-time) across its vertically integrated power generation and data processing center (cryptocurrency mining) operation. In 2014, the company employed 2 people.
- In 2020, the annual salaries and wages of full-time employees at Greenidge averaged \$77,565 – **more than double the average earnings of all wage-and-salary workers in Yates County in 2019.**
- The upward trajectory of high-tech job creation at Greenidge has continued in 2021; the facility now employs 31 full-time and 5 part-time workers, including 6 hired between February and May 2021.
- In addition, Greenidge has been a valuable source of revenue for businesses across the Finger Lakes region. **In 2020 alone, Greenidge did business with 82 local businesses, spending approximately \$6.4 million.**
- Greenidge’s spending at businesses in New York State for annual operating expenses in 2020 directly and indirectly **supported 29 jobs in industries such as engineering, maintenance and repair services, insurance, and pipeline transportation.**
- In a year when the county, the region and the state had to endure a sharp and sudden decline in economic activity, Greenidge Generation is notable for the stability of its operations. Combining both the impact of its annual ongoing operations and its private investment in the development of its data processing center, **we estimate that in 2020 alone, Greenidge directly and indirectly supported 108 jobs in New York State, with nearly \$8.4 million in employee earnings, during the worst months of the COVID-19 pandemic.**

- In 2020, Greenidge directly accounted for more than \$1.083 million in tax and fee revenues paid to New York State, Yates County, the Town of Torrey, the Penn Yan Central School District, and the Finger Lakes Economic Development Center.
- In 2020, Appleseed estimates that Greenidge accounted for approximately 6.4 percent of the Town’s combined real property tax and PILOT revenues. Viewed from another perspective – **without Greenidge’s tax payments, maintaining the level of spending authorized in Torrey’s 2020 budget would have required an increase of approximately 6.84 percent in real property taxes paid by the Town’s other taxpayers.**
- In 2020, Greenidge purchased \$1.427 million in Regional Greenhouse Gas Initiative (RGGI) allowances. RGGI is a partnership of eleven New England and Mid-Atlantic states committed to reducing greenhouse gas emissions from power plants in the Northeast. **Greenidge’s significant RGGI purchases helped New York State fund several climate-related programs, including:**
 - > Providing low-cost loans to homeowners, multi-family buildings and small businesses to improve energy efficiency and install solar and other renewable energy technologies.
 - > Providing an incentive for the purchase of electric vehicles
 - > Training New Yorkers for jobs in clean energy industries

From 2017 through 2020, Greenidge invested more than \$1 million in re-engineering and securing a former coal ash disposal site adjacent to its plant in Dresden, helping to protect both the local environment and the health and safety of residents.

- Since its opening, Greenidge has also participated in a variety of efforts aimed at strengthening its local community.
- In 2019, the company provided a grant of \$20,000 to bring Project Lead the Way – a nationally-known science, technology, engineering, and mathematics (STEM) education and enrichment program – to the Penn Yan Middle School.

By combining its strengths in both an established industry and a new, rapidly-growing business – clean energy generation and cryptocurrency – Greenidge Generation offers a notable example of how communities in upstate New York can build on their existing advantages to create new jobs, and a foundation for lasting economic prosperity.



INTRODUCTION

In the wake of a deadly pandemic and the worst economic downturn since the Great Depression, the revival of New York's economy, both upstate and downstate, will depend in part on the state's ability to focus simultaneously on two different, but complementary, strategies: building on its strengths in well-established sectors, while also seizing opportunities for growth in new and rapidly evolving industries.

Greenidge Generation LLC – a company based in Yates County, in New York's Finger Lakes region – offers a notable example of how these strategies can be creatively combined. Founded in 2014 to acquire a coal-fired power plant that had been shuttered in 2011, Greenidge converted the plant to operate on natural gas, and resumed operations in 2017. Two years later, Greenidge added a second line of business at its Yates County site – a data processing center and cryptocurrency mining operation.

This report examines the impact of the development and ongoing operation of Greenidge's power-generating and cryptocurrency mining facilities on the economy the Town of Torrey, Yates County and New York State.

The report includes:

- A brief description of the economy of Yates County and the Town of Torrey, to provide a context for our assessment of Greenidge's impact;
- An analysis of the impact of the company's investment in refurbishment of the old generating plant and its conversion to natural gas; and in the development of its cryptocurrency mining facility;
- An analysis of the impact of the company's ongoing operations – its impact as an employer, as a buyer of goods and services from other local businesses, and as a source of state and local government revenues; and
- Other benefits that Greenidge provides to its local community



GREENIDGE GENERATION IN CONTEXT: YATES COUNTY AND THE TOWN OF TORREY

Yates County is a primarily rural county located in New York's Finger Lakes region (Figure 1). According to Census Bureau estimates, the County's population in 2019 totaled 25,011, a decline of 1.33 percent since 2010.^{1 2}

Employment in Yates County in 2019 (including both wage-and-salary workers and proprietors) averaged 12,187.³ The County's diverse economy is built primarily around three major sectors:

1. U.S. Census Bureau, 2019 American Community Survey (5-Year Estimates), Social Explorer.
2. U.S. Census Bureau, 2010 Census, Social Explorer.

3. U.S. Bureau of Economic Analysis, "Total Full-Time and Part-Time Employment by NAICS Industry," 2019.

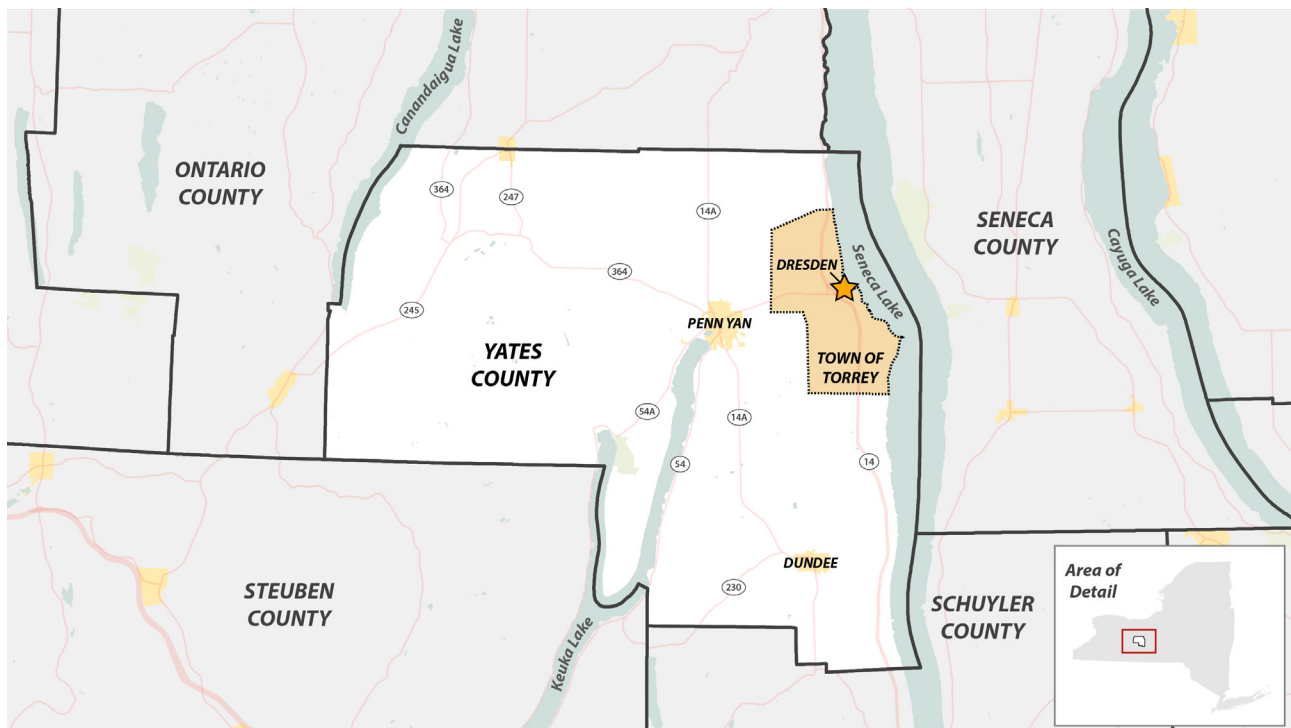


Figure 1: Map of Yates County, the Town of Torrey and Dresden

1. **Agriculture.** Yates leads all New York State counties in production of wine grapes, and is a leading producer of other crops, dairy, eggs, and livestock as well. In 2017 (the last year for which comprehensive data are available), sales of farm products by Yates County farmers totaled nearly \$115 million.⁴
2. **Manufacturing.** Yates is home to more than 20 wineries, other craft beverage producers, food processing and packaging firms, and other manufacturing enterprises.
3. **Tourism.** Driven primarily by visitors to Seneca, Keuka, and Canandaigua Lakes, to the County's wineries and to cultural events.


Table 1 presents on average annual employment in some of Yates County's leading industries.

⁴ U.S. Department of Agriculture, 2017 Census of Agriculture.

Table 1: Average annual employment in Yates County, 2019: selected industry sectors

Industry	Jobs
Agriculture	1,079
Construction	845
Manufacturing	1,669
Retail trade	1,156
Finance, insurance, and real estate	878
Health care and social assistance	1,149
Arts, entertainment, and recreation	183
Accommodations and food services	703
Other private industries	3,244
Government	1,281
Total	12,187

Sources: U.S. Bureau of Economic Analysis; New York State Department of Labor



In 2019, the earnings of wage-and-salary employees in Yates County averaged \$36,281 – 48.1 percent of the average for all New York State wage-and-salary workers (\$75,365).⁵ The median income of households in Yates County in 2019 was \$56,563 – 82.6 percent of the statewide median household income (\$68,486).⁶

Like other areas in the Finger Lakes region, Yates County is also a popular location for second homes. As of 2019, more than 25 percent of the County’s housing units were classified by the Census Bureau as being for “seasonal, recreational, or occasional” use.⁷

In 2020, the annual salaries and wages of full-time employees at Greenidge averaged \$77,565 – **more than double the average earnings of all wage-and-salary workers in Yates County in 2019.**

5. New York State Department of Labor, Quarterly Census of Employment and Wages, 2019.

6. U.S. Census Bureau, 2019 American Community Survey (5-Year Estimates), Social Explorer.

7. Ibid.

The Town of Torrey

Greenidge Generation’s generating plant and cryptocurrency mining operation are located in Dresden, New York – a small village (population 308) located within the Town of Torrey, on the western shore of Seneca Lake. The Census Bureau estimates that Torrey’s resident population in 2019 was 1,380.⁸

In 2019, 590 Torrey residents (57 percent of the Town’s population age 16 and older) were employed, most notably in⁹:

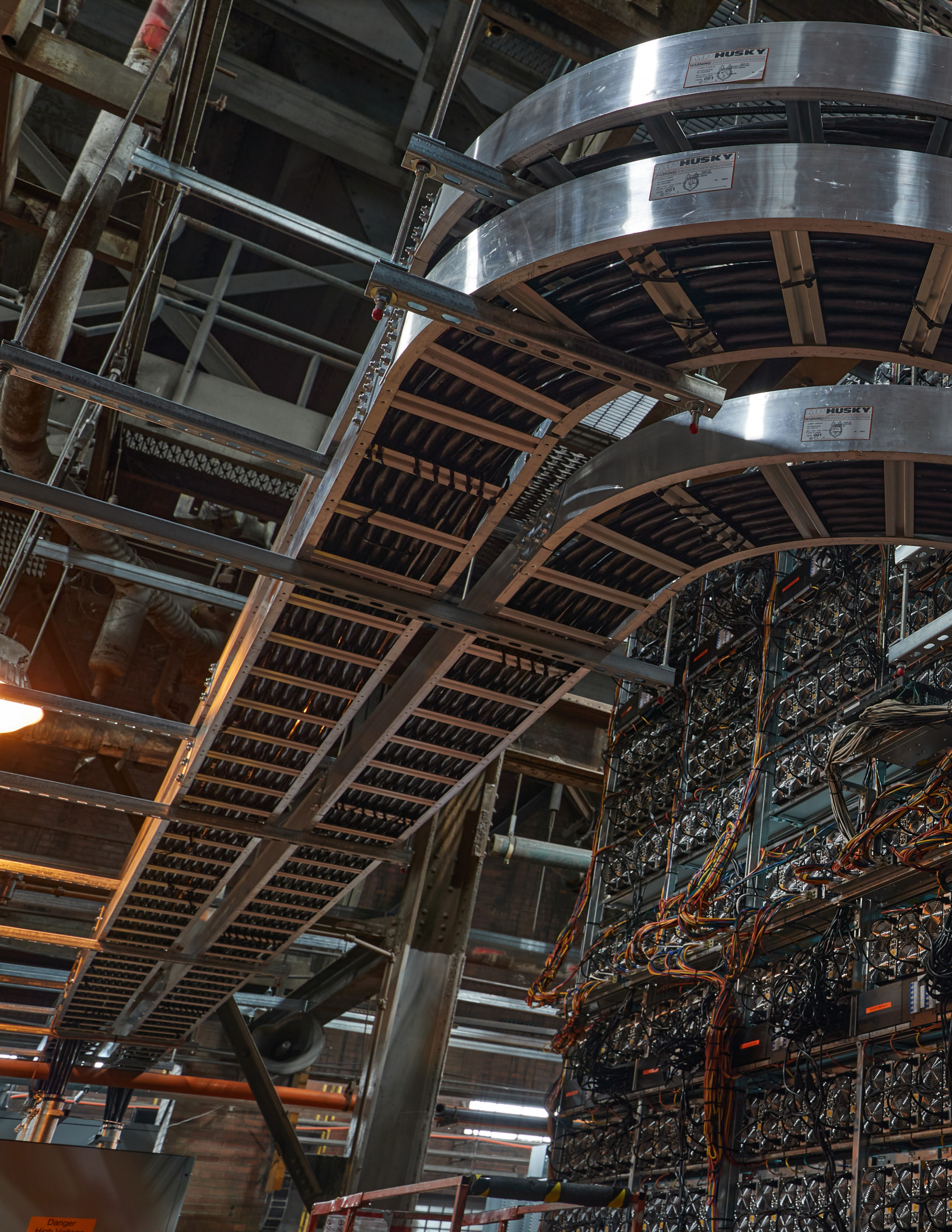
- Manufacturing
- Education, health, and social assistance
- Retailing
- Agriculture

Like Yates County as a whole, Torrey is a popular second home location. In 2019, approximately 28 percent of the Town’s housing units were classified as being for “seasonal, recreational, or occasional use.”¹⁰

8. U.S. Census Bureau, 2019 American Community Survey (5-Year Estimates), Social Explorer.

9. Ibid.

10. Ibid.



HUSKY
WARNING
001

HUSKY
WARNING
001

HUSKY
WARNING
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Danger
High Voltage

IMPACT OF REDEVELOPMENT AND CONSTRUCTION OF GREENIDGE GENERATION FACILITIES

Greenidge Generation's history in Yates County traces back to the 1930s, when New York State Electric and Gas (NYSEG) undertook development of a new coal-fired power plant in Dresden. The plant was completed and began operating in 1937.

In 1999, pursuant to state legislation requiring separate ownership of power-generating assets and transmission and distribution networks, the plant was sold to AES Corporation. Twelve years later, AES stopped generating power at the Dresden plant.

In 2014, Atlas Holdings LLC – a Connecticut-based company that has successfully transformed several industrial businesses with operations in New York State – acquired the Dresden plant and its 150-acre site. After more than two years of planning, discussions with state and local officials, and securing the necessary new environmental permits, construction – including installation of a 4.5-mile pipeline connecting the plant to New York's natural gas network – began in the fall of 2016.

Work was completed in March 2017 and in May of that year, Greenidge Generation came back online as a natural gas and biomass-fueled, computer-managed, 106-megawatt power plant permitted to operate 24 hours a day, seven days a week.

With changes in the New York power generation market forecasted to create challenging economic conditions, Greenidge soon began to explore ways in which the plant's resources could ensure long-term viability of the facility, maintain the jobs that had been created and contribute substantially to the continued growth of the region's economy. In 2018, the company identified hosting computer servers and blockchain "mining" as particularly promising opportunities and, in 2019, it began first-phase construction of a new data center adjacent to the power plant. Bitcoin mining operations commenced in March of 2020.

From 2014 through the spring of 2017, Greenidge invested approximately \$35.2 million in acquisition, rehabilitation, and conversion of its Dresden power plant; and from 2019 through the end of 2020, it invested \$18.5 million in construction and equipping of its data center and cryptocurrency mining operation.

Impact of redeveloping the Greenidge Power Generation Facility

Of the approximately \$28.4 million that Greenidge invested in the redevelopment of its power plant, nearly \$13 million supported contractors and suppliers located in New York State.



We estimate that from 2014 through 2017, Greenidge's investment in its Dresden power plant **directly supported 67 jobs** in New York State in construction and related industries, with wages totaling nearly \$5.52 million.

The effects of these investments, however, go beyond this direct impact on employment and wages. They include:

- The impact of spending by Greenidge's construction contractors on purchases of goods and services from other businesses in Yates County, and elsewhere in New York State (the "indirect effect"); and
- The impact of household spending by workers employed by Greenidge's contractors, or who work for those contractors' local suppliers (the "induced effect").

Using the IMPLAN input-output modeling system – a tool for economic analysis commonly used in economic impact studies – we can assess the indirect and induced impact of Greenidge's investment on the economies of Yates County and New York State. In Yates County, we estimate that from 2014 through 2017, Greenidge's investment directly and indirectly supported:

- 6 jobs in Yates County, with earnings totaling \$251,416 (in 2016 dollars)
- \$833,397 in countywide economic output

Statewide (including Yates County), we estimate that from 2014 through 2017, Greenidge's investment in its power plant directly and indirectly supported:

- 121 jobs in New York, with earnings totaling \$9.1 million (in 2016 dollars)
- Nearly \$22.9 million in statewide economic output

Impact of developing the Greenidge Data Processing Center

Of Greenidge's total \$18.5 million investment in the development of its data center, approximately \$5.9 million (31.9 percent of the total investment) was spent within New York, including approximately \$880,000 (4.8 percent) in Yates County. Using IMPLAN, we estimate that from 2019 through 2020, Greenidge's investment in its data center directly and indirectly supported nearly \$1.2 million in countywide economic output.

Statewide (including Yates County), we estimate that from 2019 through 2020, Greenidge's investment in its data center directly and indirectly supported:

- 62 jobs in New York, with earnings totaling nearly \$4.3 million (in 2019 dollars)
- \$9.8 million in statewide economic output



O'CONNELL
ELECTRIC COMPANY

Since 1911



A Partner in Development

Since work began in 2016 on the reopening of the power plant, O'Connell Electric – a contractor based in Victor, New York – has been a nearly constant presence at Greenidge Generation. With an on-site crew that has at times numbered as many as 40 workers, **including many members of the International Brotherhood of Electrical Workers (IBEW) Local 840**, O'Connell has played a key role in the redevelopment of the power plant, and in the design, development, equipping, and start-up of Greenidge's data center.

"We can state from our experience that Greenidge brings benefit to members of the Finger Lakes Region. During 2020, as COVID-19 was impacting many bottom lines, Greenidge and its new data processing center project provided opportunities for us and others."

– HUNT ENGINEERS, ARCHITECTS, LAND SURVEYORS & LANDSCAPE ARCHITECT, DPC

"Today, the future is bright here, and Greenidge will have a lot to do with that. We are far better for having them as a thriving business in our County."

– City Hill Construction

Combined impact of power plant redevelopment and data center project

Combining the impacts of Greenidge's investment in the development and construction of its power plant and data center, we estimate that between 2014 and 2020, Greenidge's investments directly and indirectly supported:

- 16 jobs in Yates County, with earnings totaling \$664,214
- More than \$2.0 million in countywide economic output



Statewide (including Yates County), we estimate that between 2014 and 2020, Greenidge's investment directly and indirectly supported:

- 183 jobs in New York, with earnings totaling nearly \$13.4 million and
- Nearly \$32.7 million in statewide economic output

Tables 2 and 3 summarize the total impact of Greenidge’s investment in the development and construction of its power plant and data center in Yates County and New York (including Yates County).

Table 2: Impact of Greenidge’s development of its power plant and data center in Yates County, 2014 – 2020 (wages and output in \$000s)

	Jobs	Wages	Output
Power plant			
Direct impact	4	\$195.4	\$612.8
Indirect and induced effects	2	\$56.0	\$220.6
<i>Subtotal, power plant</i>	6	\$251.4	\$833.4
Data center			
Direct impact	7	\$340.2	\$879.5
Indirect and induced effects	2	\$72.6	\$307.6
<i>Subtotal, data center</i>	9	\$412.8	\$1,187.2
Total impact	16	\$664.2	\$2,020.6

Table 3: Impact of Greenidge’s development of its power plant and data center in New York, 2014 – 2020 (wages and output in \$000s)

	Jobs	Wages	Output
Power plant			
Direct impact	67	\$5,518.3	\$13,137.8
Indirect and induced effects	54	\$3,615.1	\$9,722.5
<i>Subtotal, power plant</i>	121	\$9,133.4	\$22,860.3
Data center			
Direct impact	41	\$2,857.3	\$5,897.7
Indirect and induced effects	21	\$1,406.2	\$3,913.9
<i>Subtotal, data center</i>	62	\$4,263.5	\$9,811.5
Total impact	183	\$13,396.9	\$32,671.8



IMPACT OF GREENIDGE GENERATION'S ONGOING OPERATIONS

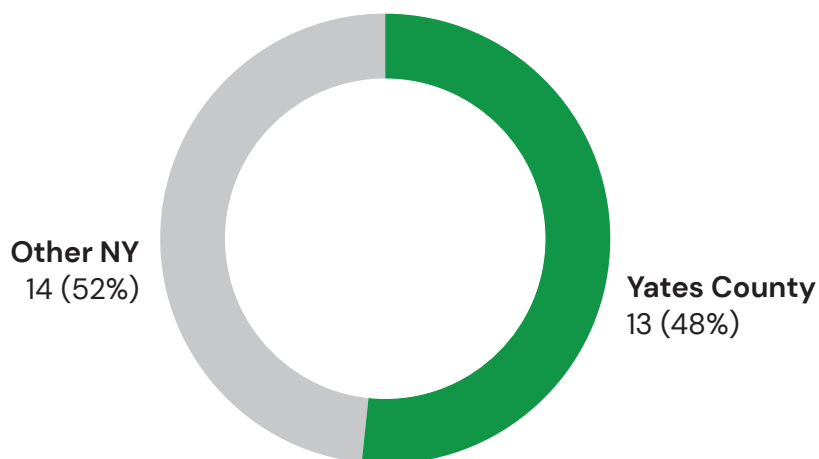
In addition to the impact of development and construction, Greenidge’s power plant and data center contribute substantially to the economic vitality of Yates County and New York State through their ongoing operations.

Employment at Greenidge Generation

In 2020, Greenidge Generation employed a total of 27 people, of whom approximately 96 percent worked full-time. As shown in Figure 2, 13 Greenidge employees (48.1 percent of all employees) lived in Yates County in 2020, and an additional 14 employees (51.9 percent of all employees) lived elsewhere in New York.

Wages and salaries paid by Greenidge to these employees totaled nearly \$2.1 million in 2020.

Figure 2: Greenidge employees by place of residence, 2020

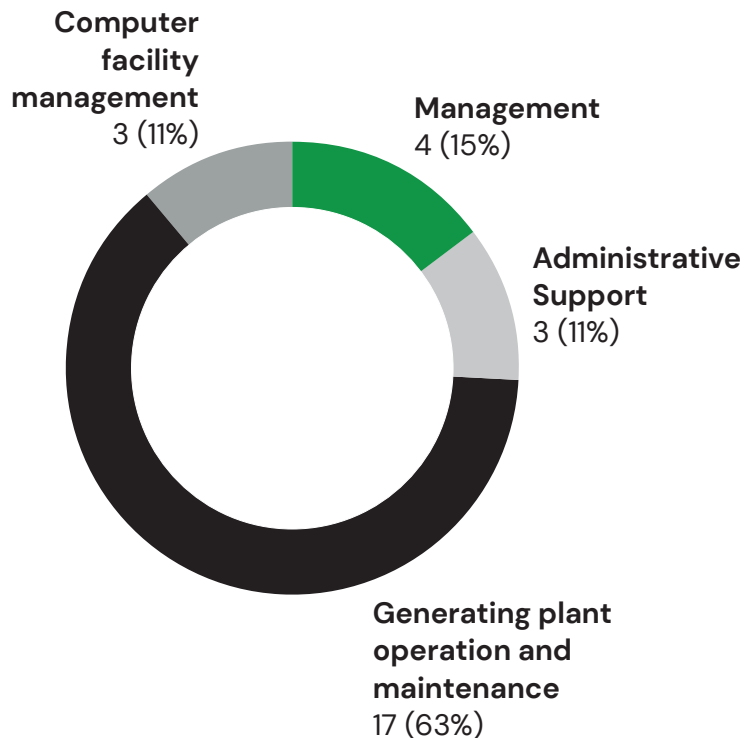


Greenidge provides a variety of high-quality jobs. As shown in Figure 3, in 2020, generating plant operation and maintenance staff accounted for 63 percent of total employment at Greenidge, managerial staff for 14.8 percent, computer facility management staff for 11.1 percent, and administrative support staff for 11.1 percent.

In 2020, full-time employees at Greenidge earned an average of \$77,565 – more than double the average for all wage-and-salary workers in Yates County in 2019 (\$36,281).

Greenidge provides employee health insurance (with 85 percent of the cost paid by the company), vision and dental care, and company-paid life and disability insurance. Greenidge also offers a deferred compensation plan in which the company matches 100 percent of employee contributions up to 3 percent of salary; and a 50 percent match on additional employee contributions between 3 and 5 percent of salary.

Figure 3: Greenidge employment by occupational category, 2020



The impact of purchasing

In addition to the individuals it employs directly, Greenidge supports the economies of Yates County and New York State through its purchases of goods and services from local businesses.

In 2020, Greenidge spent nearly \$12.4 million on the purchase of goods and services related to ongoing operations of its power plant and data center (excluding investments in development and construction). Of this total, more than \$3.6 million (29.4 percent of total purchasing) supported businesses located in New York, including approximately \$251,600 (2.0 percent of total purchasing) to businesses located in Yates County.¹¹

Using IMPLAN, we estimate that in 2020, Greenidge's spending on purchases of goods and services for non-payroll operating expenditures directly supported 29 jobs in New York, including 3 jobs in Yates County. Leading categories of in-state purchasing include engineering and consulting services, other professional services, insurance, maintenance and repair services, and pipeline transportation.

11. For purposes of calculating the economic impact of spending by Greenidge, employee health insurance is treated as a purchased service, allocated according to full-time employees' place of residence.

Putting the impact of purchasing in context

Greenidge supports the local and state economies through both its spending on purchases of goods and services related to the daily operations of its power plant and data center and through its spending on the development and construction of its facilities.

In 2020, Greenidge spent approximately \$6.4 million with businesses located in the Finger Lakes region. This combined impact of Greenidge's spending on purchases of goods and services and its spending on the development and construction of its facilities is highlighted on pg. 24.



Adding it all up: The impact of ongoing operations at Greenidge Generation

Combining the impact of Greenidge's spending on ongoing operations (excluding development and construction), we estimate that in 2020 alone, Greenidge directly and indirectly supported:

- 33 jobs in Yates County, with earnings totaling nearly \$2.3 million
- More than \$2.8 million in countywide economic output

Statewide (including Yates County), we estimate that in 2020, spending by Greenidge on its ongoing operations (excluding development and construction) directly and indirectly supported:

- 65 jobs in New York, with earnings totaling nearly \$5.3 million
- \$9.8 million in statewide economic output

These combined impacts in Yates County and New York (including Yates County) are summarized below in Tables 4 and 5.

Table 4: Impact of spending on ongoing operations of Greenidge’s power plant and data center in Yates County, 2020 (wages and output in \$000s)

	Jobs	Wages	Output
Direct spending impact			
Payroll	27	\$2,058.2	\$2,058.2
Purchasing	2	\$71.9	\$214.3
<i>Subtotal, direct impact</i>	29	\$2,130.1	\$2,272.5
Indirect and induced effects			
Employee spending	3	\$94.6	\$358.3
Contractor and vendor spending	1	\$35.4	\$170.1
<i>Subtotal, indirect/induced effects</i>	4	\$130.0	\$528.4
Total impact	33	\$2,260.1	\$2,801.0

Table 5: Impact of spending on ongoing operations of Greenidge’s power plant and data center in New York, 2020 (wages and output in \$000s)

	Jobs	Wages	Output
Direct spending impact			
Payroll	27	\$2,058.2	\$2,058.2
Purchasing	14	\$1,633.7	\$3,416.0
<i>Subtotal, direct impact</i>	41	\$3,691.9	\$5,474.2
Indirect and induced effects			
Employee spending	8	\$482.2	\$1,418.9
Contractor and vendor spending	15	\$1,091.4	\$2,955.1
<i>Subtotal, indirect/induced effects</i>	24	\$1,573.6	\$4,374.0
Total impact	65	\$5,265.5	\$9,848.3

A source of economic stability in a hard year

Both as a direct employer and a buyer of goods, services, and construction, Greenidge Generation is notable for the stability of its operations. In a year when the county, the region and the state all had to endure a sharp and sudden decline in economic activity, the value of such stability came more sharply into focus.

In 2020, Greenidge's combined spending on ongoing operations of its power plant and data center and capital investments totaled approximately \$6.4 million in the greater Finger Lakes region.¹² Using IMPLAN, we estimate that Greenidge's combined spending on ongoing operations and capital investments in 2020 directly and indirectly supported:

- 34 jobs in Yates County, with earnings totaling \$2.3 million
- Nearly \$3.0 million in countywide economic output

Statewide (including Yates County), we estimate that Greenidge's combined spending on ongoing operations and capital investments in 2020 directly and indirectly supported:

- 108 jobs in New York, with earnings totaling nearly \$8.4 million
- Nearly \$16.8 million in statewide economic output

¹². For purposes of this analysis, the greater Finger Lakes region is defined as including Cayuga, Chemung, Cortland, Livingston, Monroe, Onondaga, Ontario, Schuyler, Seneca, Steuben, Wayne and Yates counties.

GREENIDGE'S IMPACT ON STATE AND LOCAL REVENUES AND IN THE COMMUNITY

In addition to the impacts cited in Tables 4 and 5, Greenidge Generation also contributes directly to the financing of state and local governments. As Table 6 shows, in 2020:

- Greenidge's payments to New York State totaled \$320,515 (including \$102,996 in personal income taxes withheld from its employees' wages and salaries);
- PILOTs (payments in lieu of real property taxes) and sales taxes paid to Yates County, the Town of Torrey and the Penn Yan Central School District totaled \$423,226; and
- Fees paid to the Finger Lakes Economic Development Center (the County's principal economic development agency) totaled \$339,464.

Together, Greenidge's payments of state and local taxes and fees in 2020 totaled \$1,083,205.

Table 6: State and local taxes and fees generated by Greenidge, 2020

Type of tax/fee	Amount
New York State revenues	
Personal income tax	\$102,996
Sales tax	\$151,581
Department of Environmental Conservation fees	\$65,938
<i>Subtotal, New York State revenues</i>	<i>\$320,515</i>
Local revenues	
Sales tax	\$151,581
Yates County PILOT	\$87,214
Town of Torrey PILOT	\$41,793
Penn Yan Central School District PILOT	\$142,638
Finger Lakes Economic Development Center	\$339,464
<i>Subtotal, Local revenues</i>	<i>\$762,690</i>
Total	\$1,083,205



Greenidge’s contribution to local government financing is especially noteworthy. The \$271,645 Greenidge paid in county, town and school district PILOTs in 2020 represent a sharp increase from the level of taxes paid on the property prior to its acquisition, redevelopment and reopening; and make it one of the largest real property taxpayers in Yates County.

Greenidge’s PILOT payments are particularly important to the Town of Torrey. Appleseed estimates that in 2020, Greenidge accounted for approximately 6.4 percent of the Town’s combined real property tax and PILOT revenues.

Viewed from another perspective – without Greenidge’s PILOT payments, maintaining the level of spending authorized in Torrey’s 2020 budget would have required an increase of approximately 6.84 percent in real property taxes paid by the Town’s other taxpayers.

In addition to the state taxes and fees cited in Table 6, Greenidge Generation in 2020 purchased \$1,426,500 in Regional Greenhouse Gas Initiative (RGGI) allowances. The RGGI is a partnership of eleven New England and Mid-Atlantic states committed to reducing greenhouse gas emissions in the Northeast. New York’s share of RGGI funds in 2020 (about 35 percent of RGGI’s total revenue) was used for several climate-related purposes, including:

- Providing low-cost loans to homeowners, multi-family buildings and small businesses to improve energy efficiency and install solar and other renewable energy technologies
- Providing an incentive for the purchase of electric vehicles
- Training New Yorkers for jobs in clean energy industries



A partner in STEM education

In addition to being a source of local government revenues, Greenidge Generation supports and participates in a variety of efforts aimed at strengthening its local community. Most notable among these has been Project Lead the Way.

Project Lead the Way (PLTW) is a non-profit organization that develops education and enrichment programs in science, technology, engineering, and mathematics (STEM) that are used in more than 11,000 schools nationwide. The Penn Yan Central School District has for several years offered PLTW programs in engineering and biomedical science to students at Penn Yan Academy (the District's high school). In 2019, the District announced that thanks to a \$20,000 grant from Greenidge Generation, its PLTW program would be expanded to include the Penn Yan Middle School.

The PLTW Gateway program is designed to provide Middle School students with a strong foundation for learning in STEM fields in high school and beyond. The grant from Greenidge is covering costs such as annual program fees, professional development for teachers, and required classroom equipment and materials. Greenidge employees also collaborate with school personnel, and host teacher and student visits to the plant, where students can see how concepts they learn in the classroom are applied in real life, in engineering, energy and electronics.

Greenidge Generation supports its community in other ways as well. For the past several years, for example, Greenidge has made one of its buildings in Dresden available to Yates County Habitat for Humanity. Habitat uses the building rent-free to store the materials and equipment it uses in constructing and rehabilitating homes for Yates County residents.



"You may wonder where all of our construction materials and equipment are housed during this hiatus, since the site on East Elm looks pretty bare. For the past several years Greenidge Generation has donated to our organization the use of one of their buildings in Dresden. It has provided us with a large, clean, dry, secure location. When first approached, Greenidge responded quickly that they would like to be a corporate partner and help support our community's housing needs. We are deeply appreciative of their support, as well as that of many other local businesses. Their support makes our job of helping Yates County families in need of decent affordable housing become a reality."

– Yates County Habitat for Humanity

Protecting people and the environment

When the power plant at the Dresden site went into layup and ceased operations, it left behind a small mountain of coal ash that had been accumulating since the 1930s. After it acquired the plant in 2014 and received approval to resume operations, Greenidge Generation LLC agreed to take responsibility for re-engineering the disposal site – and in particular, for keeping contaminated stormwater from leaching into local streams and groundwater. A separate company – Lockwood Hills LLC – was created to manage the project.

Lockwood Hills contracted with Penn Yan-based City Hill Construction Company. For the next three years, City Hill workers removed tons of sediment, redirected the flow of water, built new containment ponds, encased the site in a new HDPE membrane, and covered it with a layer of gravel. The project, which was completed in 2020 at a cost of more than \$1 million, has helped to protect both the local environment and the health of local residents.

BUILDING YATES COUNTY'S AND THE FINGER LAKES REGION'S FUTURE



By combining its strengths in both an established industry and a new, rapidly-growing business – clean energy generation and cryptocurrency – Greenidge Generation offers a notable example of how communities in upstate New York can build on their existing advantages to create new jobs, and a foundation for lasting prosperity. During the next several years, Greenidge should be well-positioned to keep contributing to the development of that foundation.

This is so for several reasons:

- While New York State has in recent years intensified its efforts to develop new sources of carbon-free electric power, **clean natural gas-fueled generating capacity will still be needed in the years ahead to offset the intermittent nature of wind and solar, to provide back-up power and to help stabilize the State's energy grid.**

- Having an on-site source of clean, reliable “behind the meter” electric power provides Greenidge with advantages that relatively few of its competitors can match. And while the future of cryptocurrency remains a topic of debate among experts in finance and economics, it seems clear that digital currencies in some form will play an important role in the evolving global financial system.
- Moreover, the business world has hardly scratched the surface in developing new uses for blockchain technology – from managing global supply chains, to tracking more accurately the origin of food products and other traded goods, to greatly reducing the time and the transaction costs involved in trading securities.
- By working with local partners such as the Penn Yan Central School District, Greenidge can help ensure that residents of Torrey and Yates County are prepared for the jobs that both established and new technology-based businesses will offer.

For these and other reasons, Greenidge is – and will continue to be – a vital part of the County's and Region's economic future.

