

# Appendix D: Power Generation Sites Identified by the Just Transition Working Group

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Across jurisdictions, one common and prominent dimension of the vision for a just and equitable transition relates to the evolution of the power generation sector and the uncertain outcomes facing conventional power plants (primarily: fossil fuel) and their workers and host communities. This trend is certainly true for New York State, where numerous communities currently play host to conventional generation facilities of many sizes and setups (details below).

## New York State Power Generation Fleet Background

### ***Generation Fleet Basics***

- 38,497 megawatts (MW) installed summer capacity
  - 26,371 MW fossil fuel-based generation
- Approx. 500 discrete generation facilities serving bulk power system, ~150 of which are emitting resources
- 53% of generation units older than 1980
  - Common thresholds for capacity “nearing retirement:” gas turbines older than 47 years old (1973); steam turbines older than 62 years old (1958)
    - Gas Turbines – 76 out of 106 units (72%)
    - Steam Turbines – 11 out of 46 units (24%), +12 in next decade
- 84% of transmission facilities older than 1980 (by mileage)

*(Sources: 2020 NYISO Gold Book; 2020 NYISO Power Trends)*

### ***Gas Turbines & Steam Turbines “Nearing Retirement” (Fossil Fuel resources)***

- According to the New York Independent System Operator (NYISO) 2018 Power Trends Report, there is a growing amount of gas- and steam-turbine capacity reaching age threshold
  - In 2018, 866 MW of steam-turbine generating capacity in New York State was 62.5 years or older — an age at which, nationally, 95% of such capacity has ceased operations.
  - For gas turbines, 2,356 MW of capacity in New York State was 46 years or older. Nationally, 95% of capacity using this technology has deactivated by this age.

- By 2028, more than 8,300 MW of gas-turbine and steam-turbine based capacity in New York will reach an age beyond which 95% of these types of capacity have deactivated.
- But: 35% of New York’s current generating capacity has been added since 2000

The report states, “While there have been significant additions to New York’s generating capacity since 2000, power plants age like all physical infrastructure. The need to maintain, upgrade, or replace aging generation infrastructure requires attention.”

On the road to achieving the power sector goals within the Climate Act – namely, to achieve 70% renewable electricity by 2030, and 100% zero-emission electricity by 2040 – the existing power sector will undergo significant evolutions and transformations. And indeed, these impacts were contemplated by the Climate Act as something New York would have to proactively plan around: specifically, the Climate Act tasked the Just Transition Working Group (JTWG) with two discrete deliverables, which the Group considered with the leadership of a Subgroup formed specifically to tackle these power plant topics.

The two power plant tasks contained in the Climate Act include: 1) identifying generation facilities that “may be closed as a result of a transition to a clean energy sector;” and 2) identifying issues and opportunities presented by the reuse of those sites. The Climate Act requires the JTWG to “identify sites of electric generating facilities that may be closed as a result of a transition to a clean energy sector and the issues and opportunities presented by reuse of those sites.”<sup>1</sup>

The JTWG, with the help of the Power Plants Subgroup, set about to tackle these two tasks with a robust, data-driven approach rooted in real-world case-studies and the “facts on the ground” as much as possible, while acknowledging that future scenarios would not be known and fixed.

## **Identifying Generation Facilities That May be Closed**

The objective of this exercise, which was referred to in shorthand as the “power plant inventory,” was to compile key information about the existing New York State generation fleet, so as to be useful to a range of stakeholders. Further, the aim of the inventory was to help inform the JTWG and Council’s collective understanding of the issues and opportunities that surround power plant site reuse, putting them in more tangible/concrete terms. Finally, and importantly, the inventory was envisioned as a resource to assist in ongoing and future planning efforts at the local and state level, and potentially to position the state well for any future federal resources. Early in 2021, the new federal Interagency Working Group on Coal and

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<sup>1</sup> ECL § 75-0103 (8)(c)

Power Plant Communities and Economic Revitalization was formed and held its initial meetings, as originally outlined by President Biden's January 27 Executive Order on tackling the climate crisis. The federal Interagency Working Group focus is on identifying and delivering federal resources to revitalize the local economics of coal, oil and gas, and power plant communities, ensuring benefits and protections for workers in these communities. So, through this inventorying exercise, New York may be able to position itself effectively to participate in and benefit from those efforts moving forward.

Overall, the approach to the inventory embraced the view that compiling insights into the location and timing of potential plant closures would be critical for informing specific, coordinated, and locally grounded planning, which – if done proactively – can substantially improve transition outcomes. The inventory was developed, however, with a number of important caveats and bounding statements that should be kept in mind when reviewing it:

- First, the inventory is informational only, rather than predictive or decisional. So, it does not opine on the State or JTWG's view of which plants *will* close, the cause(s) of any future closures, or the specific timing/order of any future closures. This reflects the reality that the JTWG is not a decision-making body, and therefore is not developing an inventory that would be binding in any way.
- Second, and importantly, the inventory aims to focus on objective plant metrics and data-points most salient in future transitions: in particular, the criteria used to focus the research effort included plant age, capacity factor, fuel type, and known environmental/emission compliance plans. Recognizing that many of these data points will change in the future, it's also important to observe that the inventory will provide just a snapshot in time.
- Next, when it comes to plants' future plans in the real world, planning decisions will be the result of multiple considerations, including commercial, operational, regulatory, and market factors, among others. This inventory is not intended to predetermine any future decisions.
- In addition, plant deactivations go through a very prescriptive process through the NY-ISO. As a result, the inclusion of a plant on the inventory does not suggest that deactivation planning or other NY-ISO processes are imminent or should be initiated.
- And last but not least, a reminder that the inventory is all in the context of the major guiding Climate Act requirements for the electric sector: 70% renewable electricity by 2030, and 100% zero-emission electricity by 2040.

With these parameters in mind, the JTWG considered a universe of facilities, broken out into private facilities owned by independent power producers and investor-owned utilities; and public facilities such as those owned by or serving the New York Power Authority (NYPA), the Long Island Power Authority (LIPA), and municipal utilities. On the private side, there were 32 facilities that were identified, representing roughly 16,000 MW of capacity – but inclusive of several gigawatts (GW) of previous/known retirements, plus additional capacity that is already planned to be out of service pursuant to the New York State Department of Environmental Conservation (DEC) nitrogen oxide (NO<sub>x</sub>) emissions regulations.<sup>2</sup> Based on the research the JTWG conducted, these facilities currently contribute about \$140 million per year in property taxes to local jurisdictions, a figure that does not include broader local economic impacts.

On the public side, a similar story emerged, with about 29 facilities that were identified, representing just 6,500 MW of capacity – and again, also inclusive of capacity that will be out of service later this decade under the DEC NO<sub>x</sub> regulations. These plants do represent considerable local property tax payments of about \$180 million per year, largely attributable to some of the ongoing discussions on Long Island.

With respect to jobs and employment figures, partial data was found to be available, representing roughly 2,100 jobs. Employment figures contributed via subgroup members (including labor unions representing certain power plant workers) and agencies total approximately 1,520 workers across 22 plants (out of 61 facilities on the inventory). In addition, *Quarterly Census of Employment and Wages* data, via the New York State Department of Labor (DOL), provided the ability to look at de-identified/ aggregated employment numbers for other plants on the inventory (confidentiality rules prevent data from being shared at a firm- or employee-specific level). The QCEW data identified approximately 586 additional employees at another 20 facilities on the inventory; and data was unavailable or unable to verify for a small number of remaining facilities on our inventory. So, combined, these data inputs suggest that the facilities on our inventory correspond to at least approximately 2,100 jobs, with additional jobs expected for plants where data is not available.

To put these figures in context, the overall statewide generation fleet includes 38,000+ MW of total capacity, of which 26,000+ MW are fossil-based resources – with a count of roughly 150 individual emitting facilities. And as shown in the appendix to the New York State Energy Research and Development Authority (NYSERDA) Clean Energy Industry Report, there were roughly 24,000

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<sup>2</sup> 6 NYCRR Subpart 227-3.

employed in New York’s traditional power generation sector *overall*, which includes direct plant workers but also the full supply chain of firms engaged in facility construction, turbine and other generation equipment manufacturing, operations and maintenance, and wholesale parts distribution.

In terms of sources and research, the team working on the Inventory endeavored to make use of publicly available data sources wherever possible. The primary source for much of the power generation data is the New York Independent System Operator (NYISO) Gold Book (2019 and 2020 versions primarily). Other research of publicly available online resources helped fill in other data categories. For some categories, some information assembled may not be readily available online, including some jobs figures contributed by members of the Power Plant Subgroup, as well as some grid infrastructure data that some of the state agency teams helped provide.

## Identifying Issues and Opportunities Presented by Reuse of Power Plant Sites

For the second power plant related task contained in the Climate Act, the JTWG developed a list of the most prominent and impactful issues and opportunities presented by the reuse of power plant sites into new, alternative applications.<sup>3</sup> Through all the research conducted and the discussions held with the JTWG and Subgroup, it was clear that power plant reuse is an area where there are both challenges as well as promises of opportunity moving forward. And again, like elsewhere across the country and world, transitions related to power plants are a critical element of how a just transition will unfold in New York, so it is important to understand these issues and opportunities and their nuances.

Table D-1 provides an overview of the issues and opportunities that were identified. Further descriptions of each category follow.

**Table D-1. Overview of Issues and Opportunities**

| Issues Presented by Power Plant Site Reuse                                  | Opportunities Presented by Power Plant Site Reuse                |
|---|--|
| Displaced workforce, and local economic impacts                             | Repurposing with onsite clean energy resources                   |
| Reduced local property tax revenues (County, Municipality, School District) | Interconnection points and infrastructure for offsite renewables |

<sup>3</sup> Based on the word ‘Reuse’ in the Climate Act, the JTWG focused its efforts under this task on reuse activities that could be explored on sites after the plant in question was fully retired and deactivated. The JTWG did not consider future scenarios that would potentially see the plant maintaining its operations but also adding new uses/activities on the site.

| <b>Issues Presented by Power Plant Site Reuse</b>                | <b>Opportunities Presented by Power Plant Site Reuse</b>             |
|--|--|
| Parcel ownership, transfer, and associated factors               | Commercial redevelopment – residential, commercial, mixed-use, etc.  |
| Local planning capacity and community engagement                 | Port/marine infrastructure   |
| Impacts caused by a dormant site being left unattended/unmanaged | Industrial reuse, Information Technology/data centers, manufacturing |
| Environmental remediation  | Green-space, park infrastructure – including for climate resilience  |
| Reliability impacts (current reliability role/contribution)      | Diversify/extend property tax revenues                               |
| Stranded assets and infrastructure impacts                       |  |

### ***Issues Presented by Power Plant Site Reuse***

#### Displaced workforce, and local economic impacts

**Issue:** Workers at fossil fuel facilities face considerable uncertainty and apprehension related to the future of their workplace and livelihood.

Supporting and providing resources to displaced workers is therefore a critical element of New York’s just transition, with a need for regular and informative communications. The existing power plant workforce is a true jewel of New York and represents an asset for the future of the energy system, with the workforce being highly skilled and trainable for future applications. One dimension of this issue was a prediction that it may prove difficult for site reuse/redevelopment to provide same-site job opportunities for workers previously employed in power plant operations, aside from certain opportunities in remediation, security, and others.

To address this issue, the JTWG identified a strong need for more advanced outreach and support to employees – well prior to a plant’s closure where known, in addition to the “rapid response” workforce support resources that are deployed in the months immediately preceding closure of major employment facilities. The JTWG recommended that the focus of advanced workforce support be on where the impacts/concerns will be most acute – for example, for the mid-career worker with a young family and mortgage, too far from retirement age. A variety of specific activities may be worth undertaking to inform workforce resources and planning, including a state-led survey of workers’ current status, skillsets, plans for retirement, interests in clean energy and other new fields (which the JTWG was supportive of). This follows the recognition that the traditional power generation workforce is not a single monolith, and there will be a variability in desires and needs accordingly.

Over the near- and long-term, there was a strong desire expressed to find job placement and training opportunities for these workers within New York as a first preference – targeting skills-alignment in both energy and non-energy roles. The JTWG identified acute needs both for retraining of workers and retention of workers, to ensure that plants are sufficiently staffed through the remainder of their operational lives. Finally, this issue brings with it substantial indirect economic impacts in and around plant communities stemming from the loss of direct employment, which should be considered as well.

#### Reduced local property tax revenues (County, Municipality, School District)

**Issue:** Local revenue impacts.

Host communities have for many decades planned their local budgets understanding these facilities are locally sited and may in fact be the single largest revenue source in a locality. Further local economies are also partly organized around the operation of these facilities, which also can impact the tax base. New York has its own unique experience in these matters, including perhaps most notably surrounding the Indian Point Closure Task Force, and in many cases surrounding facilities serving LIPA.

The State established the Electric Generation Facility Cessation Mitigation Program, which is administered by Empire State Development. This fund was established to help with the transitions that host communities will need to make, as power plants come offline and off the local tax rolls, and as alternate revenue resource can be brought to bear. Originally supported through appropriations in the State budget, the Public Service Commission (PSC) acted in 2021 to provide a stable mechanism for this fund over the next 10 years, which is intended to support communities impacted by aging power plant closures. Because the support under the Mitigation program lasts only for a period of years, under a long-term view of budgeting and economic development, proactive efforts will need to be taken, both local and state, to account for and hopefully overcome future tax revenue losses.

#### Parcel ownership, transfer, and associated factors

**Issue:** Challenges related to parcel ownership and transfer, which many intuitively grasp is closely linked to any future plans for site reuse.

This set of issues is likely to be site-specific, but there will likely be scenarios both where existing plant owners are directly interested in redeveloping/repurposing their site over time, especially related to future energy uses at the site; and where that interest from existing owners does not exist, there may be steps

taken to transfer parcel ownership and/or subdivide the site to allow for timely redevelopment by other interested parties.

There are also impacts related to parcel zoning status here, which may confine future reuse opportunities. In some cases, power plants may predate the adoption of local zoning maps and ordinances, meaning that their parcels may be subject to legacy zoning designations resulting from the power plant itself, rather than more up-to-date local plans related to the site. It is also worth noting is the importance of willing cooperation of adjacent landowners for certain reuse opportunities, such as large-scale renewable energy, as one example of an application requiring more physical space.

#### Local planning capacity and community engagement

**Issue:** Undertaking a site reuse effort can be a major endeavor from a local planning perspective, being both time and resource intensive as well as requiring certain expertise.

Despite this, advance planning can help communities respond to and prepare for power plant closures, so it is critical work. In the wake of COVID-19, local planning resources and in-house expertise may be constrained and/or misaligned with the needs related to navigating power plant site reuse. That is one reason why NYSERDA developed and advanced a \$5 million technical assistance program to equip localities with additional resources to undertake site reuse plans. A critical element of this local planning process is ensuring local community voices are heard and can contribute to planning efforts. This is true as a matter of principle based on the Just Transition principles the group advanced, and more concretely is necessary to ensure that any plans for reuse are designed and shaped with local community benefits in mind. In many cases, site reuse can allow communities to seize the opportunity to repair historical impacts borne locally. That reparative lens can help communities strike an appropriate balance between potentially competing considerations and preferences.

#### Impacts caused by a dormant site being left unattended/unmanaged

**Issue:** Impacts caused by sites lying dormant for extended periods of time following closure and deactivation.

The desire to avoid this type of outcome or minimize the time of dormancy may drive localities to pursue site reuse expeditiously. The set of impacts here are varied, ranging from fiscal impacts, aesthetic/eyesore concerns, public health and safety considerations, environmental factors, and abutting parcel concerns, among others. One key element is adequate communication to members of the surrounding community as



to the likely duration of any site dormancy. Finally, while this category of issues is not unique to power plants among other industrial sites, it is likely to be acute for power plants in many respects given the nature of the infrastructure on those sites.

#### Environmental remediation

**Issue:** Environmental remediation needs that may be required as a step prior to any site reuse.

These efforts may entail activities such as asbestos abatement, waste removal, other environmental remediation and restoration, including during and after the demolition or deconstruction of any power plant structures and associated infrastructure, such as for fuel delivery and storage. This issue is highly site specific, and the extent of remediation measures required will vary widely by site and by plant type, including at one end of the spectrum the extensive decommissioning work required for a nuclear facility such as Indian Point. Identifying funding to support remediation activities will be a material factor in reuse, and may require a mix of public and private programs and sources, including federal and state brownfield-related opportunities. Some categories of remediation work, such as asbestos, may also have a nexus with health and benefits support for plant workers.

#### Reliability impacts (current reliability role/contribution)

**Issue:** Reliability, which includes: 1) any current reliability role/contribution from an existing plant, 2) any impacts that may arise due to retirement, and 3) any future contribution of energy infrastructure at the site.

States across the U.S. have observed all too recently and poignantly the paramount importance of system reliability, especially during periods of prolonged need during extreme weather conditions. Thankfully, New York benefits from specific investments, policies, requirements, and planning processes to ensure that we are taking reliability as seriously as possible, including via the resource diversity and grid investments we have achieved to date and are further expanding. At the NYISO, detailed and prescriptive processes govern the safe retirement of facilities serving the bulk power system, with studies to determine whether a reliability need would result from the deactivation of the facility in question, along with ongoing, recurring analyses of system reliability over short- and long-term planning horizons.

Specifically, NYISO market participants must provide the NYISO with a minimum of 365 days prior notice before a large generator may be Retired or enter into a Mothball Outage. NYISO's review of generator deactivation is part of the Short Term Assessment of Reliability (STAR), which is performed on

a quarterly basis in coordination with Responsible Transmission Owners. The NYISO conducts the necessary reliability studies to review the impact on the reliability of the Bulk Power Transmission Facilities (BPTFs) that would result from the Generator being unavailable.

As one notable example where a reliability impact was not found, NYISO issued a report in December 2017 on system reliability impacts of Indian Point closure dates in 2020 and 2021, concluding that the plant could close on schedule without negatively impacting reliability. Wherever the opposite may be true, however, plans and schedules for retirement and repurposing could be disrupted/modified, if a reliability need cannot be otherwise resolved. Especially in New York City and Long Island, there is a dynamic wherein the transmission and distribution grid has been built up based specifically on the locations of existing plants – which has created a need to solve for things like load pockets and transmission security constraints with solutions located at or providing power to those existing plant location areas.

#### Stranded assets and infrastructure impacts

**Issue:** The category of stranded assets and infrastructure impacts.

The topic of stranded power plant assets is discussed a lot in the national context when it comes to just transition planning, but that is most salient in vertically integrated utility markets, where ratepayers may be directly on the hook for outstanding/stranded costs for any power plants that close earlier than planned. Since New York has a restructured, competitive power generation market, this issue of stranded ratepayer assets should largely be mitigated. But it may be true that site reuse could contend with lingering assets from a non-ratepayer/private financing perspective, and there may be some instances where other infrastructure serving a plant, such as fuel transportation and storage, may be rendered obsolete/stranded should their use no longer be needed. These could include assets owned by public utilities (electric, gas, water, etc.) and which may have additional impacts at the time of plant closure.

Another important infrastructure impact relates to asset separation: specifically, to separate and disentangle switchyard and substation equipment that will remain owned and operated by the transmission owner after the plant's closure. These separation upgrades will bring benefits but can come with meaningful costs, as was reported on such investments made by National Grid surrounding the Huntley plant in recent years (post-closure). Broader infrastructure impacts certainly have to be considered too, not least of which include a potentially wide range of climate vulnerability impacts. Reuse may require the climate-proofing of future site uses, expecting increasingly common and damaging

extreme events, especially in locations that may be located on the waterfront and/or most susceptible for climate impacts.

### ***Opportunities Presented by Power Plant Site Reuse***

#### Repurposing with onsite clean energy resources

**Opportunity:** Repurposing power plant sites with onsite clean energy resources is a natural top candidate for reuse.

Options include solar, wind, energy storage, EV charging, zero-carbon fuel production, and more. While development may pose more challenges than typical/greenfield sites, the JTWG expected there to be opportunities for both private renewable development and development via public programs such as NYSERDA's Build Ready program. Onsite clean energy facilities could benefit from the use of significant grid infrastructure and interconnection capacity as power plant Capacity Resource Interconnection Service (CRIS) rights expire or are auctioned for re-use. While clean energy facilities may not be able to replace power plant capacity 1-for-1 in all cases, onsite clean energy resources present opportunity to materially reduce the pollution burden on local communities – a contributor to asthma, other respiratory illness, heart disease, and other health outcomes. Geographically targeted demand-side resources (energy efficiency, demand response, active demand management/load flexibility, grid-interactive buildings) are also an important tool as part of a holistic plant-replacement approach.

Because, as discussed above, the transmission and distribution networks have in many cases been built up based specifically on the locations of existing plants, onsite resources (and injections of power) at the location of plants will be especially beneficial to the grid. For day-to-day peak reliability applications, energy storage technologies present strong potential as a means of replacing peaking units with short runtimes with 4-hour and 8-hour lithium-ion storage technologies. Advances will be needed in emerging long duration energy storage applications to address more extended and seasonal peak needs in the future, including during extreme weather conditions. In either case, storage may be most conducive to sites with limited geographical footprint, especially at plants in urban locations.

#### Interconnection points and infrastructure for offsite renewables

**Opportunity:** Sites also present significant opportunities to serve as transmission interconnection points for offsite renewable resources, such as offshore wind and upstate renewables.

As with onsite resources, this model for reuse would make use of grid interconnection capacity and infrastructure availability, as well as space for new grid infrastructure like high-voltage direct current (HVDC) converter stations. Interconnection of offsite resources can be implemented as an independent solution, or as a purposeful complement to onsite clean energy infrastructure (e.g., to pair with energy storage). Prominent opportunities exist for this model to emerge, most notably via NYSERDA's Offshore Wind RFPs and Tier 4 RFP, and at/via facilities owned/leased by NYPA and LIPA. Notably, proposed offshore wind connections already contemplate connections proximate to existing generation facilities: Empire Wind 1 at Gowanus; Sunrise Wind at Holbrook; Empire Wind 2 at Barrett; Beacon Wind at Astoria. Furthermore, multiple prospective Tier 4 projects announced feature connections at Zone J power plant sites. This reuse opportunity may also be compatible with a variety of other potential uses depending on physical footprint of the interconnection/grid equipment necessary, additional available space onsite

#### Commercial redevelopment – residential, commercial, mixed-use, etc.

**Opportunity:** A range of commercial redevelopment uses – residential, commercial, office-space, mixed-use, etc. – may also present themselves as options at power plant sites.

Such developments may support construction jobs, but not all may support long-term onsite job creation. Despite potential demolition and remediation needs, commercial developers may find value in site characteristics (location, waterfront access, etc.) as well as in the ability to repurpose visually striking elements of the plant structures (e.g., smokestacks). Variation in real estate property value across regions of the state is also likely to direct this interest. Depending on site characteristics, redevelopment could bring commerce and vibrance to areas that may not previously have significant housing population and commercial activity nearby. In environmental justice areas and disadvantaged communities, however, caution needs to be exercised to ensure redevelopment centers around benefitting local communities and does not unfold in a way that promotes or induces displacement of local residents.

#### Port/marine infrastructure

**Opportunity:** Many plants situated on the waterfront may be valuable as opportunities to pursue port/marine transport infrastructure uses, especially for plants whose water-access is also connected to rail, highway, and other transportation modes.

Power plant sites on the waterfront may have unique access to deep-water ports in particular, which would allow for uses that protect/preserve the working waterfront, with activities such as offshore wind

staging, assembly, and manufacturing. Rebuilding the capacity for maritime dependent uses – both commercial and recreational – may be well-received as a way to continue the history/tradition of waterfront work and access in certain areas. Waterfront access may have the additional attribute of supporting intermodal marine transit, whether for routine use (e.g., ferry services) or as an asset to address climate vulnerability (e.g., storm infrastructure for response and evacuation).

#### Industrial reuse, Information Technology/data centers, manufacturing

**Opportunity:** Industrial reuse for a range of manufacturing and other energy intensive applications, such as information technology/data centers.

Like many energy infrastructure applications, heavier energy-consumptive reuse opportunities may also benefit from significant grid capacity available at power plant sites. These more industrial applications may include information technology/data centers, general manufacturing, green manufacturing, greenhouses & agriculture, and others. Certain use-cases may also benefit from water-access for cooling processes (e.g., data centers). Many information technology and manufacturing reuse opportunities promise potential for job creation, local investment, and property tax contributions. Green manufacturing (e.g., electric vehicle supply chain/componentry) in particular has natural synergies with Climate Act goals for decarbonization and economic development. There is a recognition of certain use-cases being explored while existing power plants remain operational, rather than repurposing them; this “opportunity” does not extend to such applications, and close attention is needed to ensure industrial applications are energy efficient and powered by clean energy so as to further Climate Act achievement and economic development goals.

#### Green-space, park infrastructure – including for climate resilience

**Opportunity:** Power plant sites may also provide creative opportunities for publicly accessible green-space and parks infrastructure – especially for waterfront locations.

This includes adaptive forms of reuse providing climate resilience and related ecological services, e.g., leveraging designs and measures to reduce and absorb flood surges and alleviate heat island effect, among other nature-based adaptation solutions. The ability (or lack thereof) to benefit financially from reuse exclusively reserved to these green space opportunities may not make them the first preference of existing property owners, but they could add value and appeal as a partial reuse alongside other forms of compatible development and reuse. Public entities could play a more central role where opportunities exist to conserve land and create publicly beneficial green-space – acknowledging that doing so may not

by itself support long-term job creation. Reuse could also be directed to actively complement and combine with adjacent/nearby park infrastructure that may exist along waterfronts.

Diversify/extend property tax revenues

**Opportunity:** An overarching opportunity spanning many of these reuse forms is to provide localities with the added benefit of finding uses to diversify and extend property tax revenues from sites after the end of a plant's useful life.

A host community's planning for the long-term of life after the plant should be reflected in the use or uses pursued, with a preference in some cases for multi-stream property tax revenues. Local, regional, and state economic development efforts should leverage the site, employee skillsets, and community attributes to guide economic development strategy, once again in a manner seeking multiple, diversified tax revenue-positive enterprises. Municipalities and property owners will likely pursue a variety of tactics to market and promote interest in redeveloping a power plant site for new uses, and digital and social media may provide new opportunities to attract positive attention to the opportunities for site reuse and provide new opportunities for members of the community to weigh in with input.