19. Economic Impacts: Jobs Analysis

Draft New York State Energy Plan

July 2025

Key Findings

- Employment across New York's energy economy—including the electricity, buildings, transportation, and fuels sectors—is expected to increase by over 60,000 net jobs by 2040 under the Draft State Energy Plan's core planning scenario, Additional Action. This is a 13 percent increase in energy sector jobs statewide between 2025 and 2040.
- The electricity and buildings sectors are projected to experience notable growth, jointly adding more than 80,000 net jobs, driven by sizeable investments into clean electricity generation and building efficiency and electrification. The employment expansion in these sectors is more than four times the projected decline in the vehicle maintenance, fueling stations, and other fossil fuel-related subsectors.
- New jobs are largely concentrated in the construction industry, which is expected to grow by roughly 58 percent (47,000 net jobs). Manufacturing will also experience meaningful growth, growing by 25 percent (6,600 jobs) under the Additional Action scenario.
- Clean energy investments will also stimulate job growth across New York's economy, inducing a projected 13,600 net new jobs in other industries as a result of increased economic activity.

1. Overview

The State Energy Plan recognizes employment outcomes as one of the primary economic impacts from New York's energy investments. This analysis evaluates the employment impacts associated with the Additional Action scenario developed in the Pathways Analysis for the State Energy Plan.[1]

Over the planning period (2025–2040), over 60,000 net new jobs are projected across New York's energy economy in the Additional Action planning scenario, pointing to meaningful economic benefits. The Additional Action scenario assumes the continuation of existing local and State policies as well as additional policies and programs to drive further market adoption, such as increased investments into transportation and building efficiency and electrification. For a full description of scenario assumptions, see the Pathways Analysis chapter of this Plan. The Pathways Analysis and this employment impacts analysis were completed in June 2025 based on assumptions set in March 2025; they do not reflect more recent State policy updates or the federal policy environment as of summer 2025. The final State Energy Plan will include updates to these analyses.

Using New York employment data for 2023 as a baseline year, employment impacts are projected for 2025, 2030, 2035, and 2040.[2] These impacts include direct, indirect, and induced jobs across the electricity, fuels, buildings, and transportation sectors and their relevant subsectors.[3]

2. Methodology

2.1. Modeling and Output Structure

For this analysis, New York's energy economy is organized by the four major sectors shown in Table 1. This structure focuses on the four sectors of the economy most directly impacted by State energy policies.

This modeling effort estimates the employment impacts associated with in-state capital and operational expenditures across the subsectors listed above. The modeling framework also includes negative employment impacts in New York in those subsectors seeing reduced investments and expenditures from this scenario. Modeling does not include economic impacts on households and businesses from energy cost savings. Assumptions made within specific subsectors vary due to the nature of the different activities.

[1] This employment impacts analysis was conducted by BW Research.

[2] Baseline employment data is sourced from the 2024 New York Clean Energy Industry Report and the 2024 United States Energy and Employment Report (USEER) unless otherwise stated. The analysis models projected employment for the future years based on the Pathways scenario data. The employment modeling approach is developed based on the methods used in the New York Just Transition Working Group's 2023 Jobs Study.

[3] **Direct** employment is associated with the initial economic activity of a given investment or activity (e.g., changes in wages, production, or jobs). **Indirect** employment is associated with the supply chain connected to the initial economic activity of the original investment or activity (e.g., purchases of goods and services or business tax impacts). **Induced** employment is based on the additional household spending resulting from the additional direct and indirect employment that is generated from the initial economic activity of the original investment or activity (e.g., wages paid, household purchases, or household tax impacts).

Table 1. Primary Energy Sectors and Subsectors

Category	Sector	Subsector
Energy Supply	**Electricity**	Solar Offshore Wind Onshore Wind Hydropower Hydrogen Biomass Distribution Transmission Storage Natural Gas Generation Other Fossil Generation Nuclear
	Fuels	Hydrogen Bioenergy Natural Gas Natural Gas Distribution Petroleum Fuels
Energy Demand	**Buildings**	Commercial HVAC Commercial Shell Commercial Other Residential Shell Residential HVAC Residential Other
	Transportation	Vehicle Manufacturing Wholesale Trade Parts Charging & Hydrogen Fuel Stations Vehicle Maintenance Conventional Fueling Stations

The methodology follows six steps:

1. Determine the unit inputs for the model. Unit inputs typically come from the Pathways Analysis data and take the form of device stocks and sales, megawatts (MW) of electric capacity, and fuel demand.
2. Determine the unit and total investments. Investment inputs come from the Pathways Analysis data where provided, and any additional investments assumed from secondary sources have been noted.
3. Process the investments to reduce inter-annual variation as needed.
4. Use technical cost data from secondary sources to allocate the processed investment data into the relevant industry categories based on the activities associated with the investments, such as relevant construction, manufacturing, and professional services activity.
5. Apply IMPLAN/JEDI industry employment multipliers based on the allocation described in step 4 to calculate employment outputs.

6. Report employment outputs by sector, subsector, and by industry category (construction, professional services, manufacturing, other supply chain, and induced).

3. Employment Impacts

3.1. Results Overview

Under the Additional Action scenario, overall energy sector jobs in New York increase by 9 percent between 2025 and 2030, further increase by 5 percent between 2030 and 2035, and decrease by 2 percent between 2035 and 2040. Over the full horizon of this Plan (2025 to 2040), net jobs are expected to grow by 13 percent. Overall, 60,700 net new jobs are projected to be added between 2025 and 2040, with this increase driven by sizeable investments into clean electricity, building efficiency and electrification, and clean transportation, offset somewhat by comparatively smaller decreases in the transportation and fuels sector. The largest number of new net jobs are projected in the electricity sector, which sees roughly 44,500 new jobs, or a 32 percent increase, and maintains the second-largest share of energy workers throughout the horizon of the Plan. The buildings sector makes up the largest sector of the energy workforce and is projected to add roughly 38,800 net jobs over the course of the Plan. Net jobs in the transportation and fuels sector are expected to decrease between 2025 and 2040—by 14 percent and 13 percent, respectively—consistent with decreased investments in fossil fuels modeled in the Additional Action scenario.

Table 2. New York Jobs, by Energy Sector

Sector	2025	2030	2035	2040	Change 2025 to 2040
Electricity	138,701	164,007	184,665	183,331	32 %
Buildings	169,445	188,840	203,116	208,298	23 %
Transportation	136,808	134,030	129,155	118,190	-14 %
Fuels	31,616	31,496	29,284	27,449	-13 %
Total	**476,570**	**518,373**	**546,221**	**537,268**	**13 %**

Much of the net increase in jobs can be attributed to increased demand for construction work, which is expected to add roughly 47,000 new net jobs. Other net growth industries include manufacturing (6,300 added jobs), professional services (3,400 added jobs), and induced jobs across the economy (13,600 added jobs). Jobs in other parts of the supply chain, which include some operations jobs (for example plant operators, maintenance work, wholesalers, or other on-site work outside of the construction phase), are expected to decrease by 9,500 net jobs (see Figure 1). Other supply chain jobs may increase beyond the time horizon of the plan as new construction planned in the later years of the Additional Action scenario become operational.

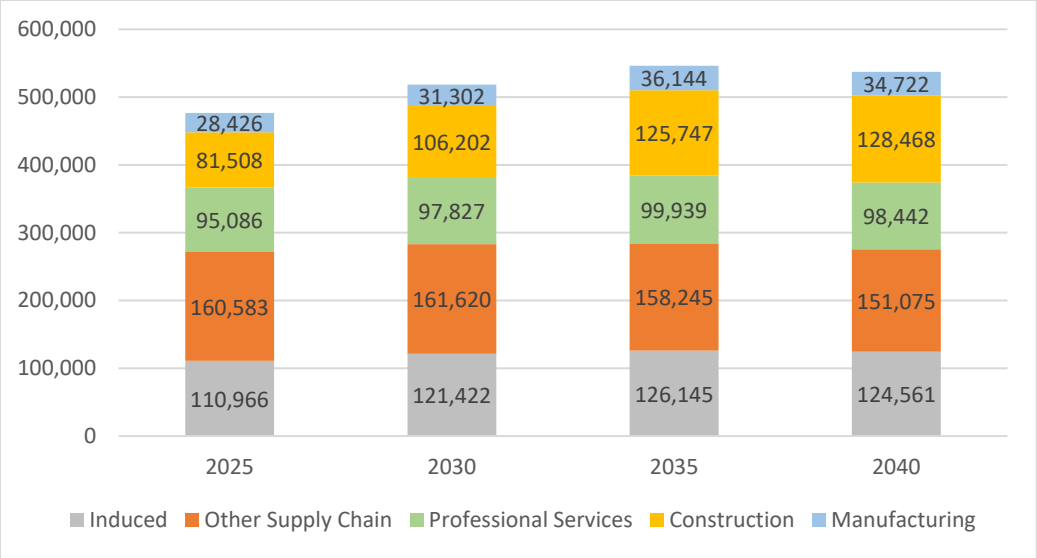

Figure 1. New York Net Energy Jobs, by Industry

Within the two net growth sectors, the electricity sector and the buildings sector, roughly half of the added jobs (or 43,900 jobs) are in the construction industry. About one-fifth (21 percent) are in induced across other industries, and the rest in other supply chain work such as operations and related work (14 percent, manufacturing (6 percent), and the balance are in professional services (see Figure 2).

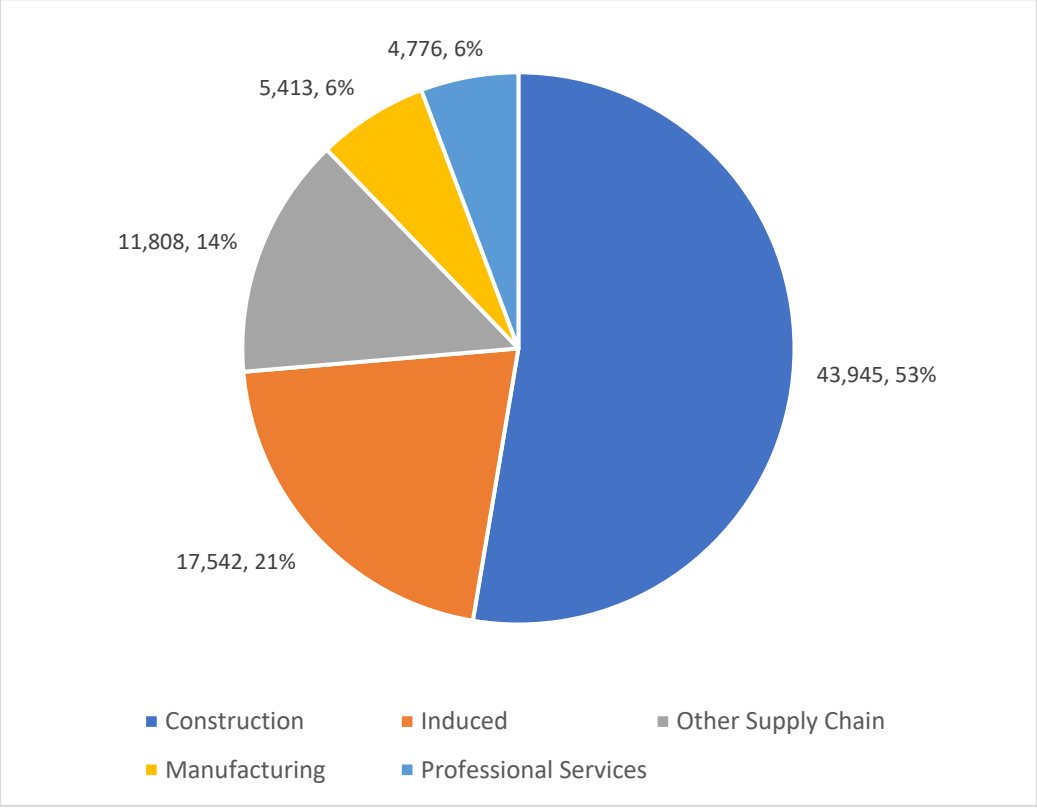

Figure 2. Net Job Growth by Industry, Growth Sectors (Electricity and Buildings) (2025–2040)

4. Electricity Sector

Investments into the electric sector are projected to generate 44,600 jobs between 2025 and 2040 (see Table 3). Despite consistent growth at the sector level, projected growth is not uniform across the subsectors. The increases are concentrated largely in renewable energy sources such as wind, hydropower, and solar, as well as in storage and electric distribution jobs. This growth meaningfully outpaces the projected displacements. Additionally, repowering fossil plants near retirement to clean, dispatchable energy sources helps offsets many of the jobs displaced in fossil and gas generation.

Table 3. New York Jobs - Electricity Subsectors

Sector	2025	2030	2035	2040	Change 2025 to 2040
Distribution	71,852	77,651	84,031	90,406	18,554
Utility Solar	4,645	10,838	21,647	23,611	18,966
Distributed Solar PV	20,447	25,221	23,624	19,107	-1,340
Offshore Wind	874	7,631	16,162	12,482	11,608
Hydropower	7,832	7,832	7,832	10,205	2,373
Land-based Wind	6,753	7,023	6,864	9,540	2,787
Fossil Fuel and Hydrogen Generation	13,027	11,572	9,440	7,439	-5,588
Storage	5,299	8,237	7,222	5,709	410
Nuclear	4,825	4,840	4,621	4,609	-216
Transmission	207	223	356	224	17
Biomass	2,939	2,939	2,866	0	-2,939
Electricity Total	**138,701**	**164,007**	**184,665**	**183,331**	**44,630**

The electric distribution sector is projected to add over 18,500 net jobs between 2025 and 2040, a roughly 26 percent increase, consistent with increased investments to expand and bolster the State's electric distribution system. Solar generation, including utility scale and distributed solar, is expected to generate more than 17,600 net jobs between 2025 and 2040, with all the net new jobs concentrated in the New York utility scale solar industry. Offshore and onshore wind are projected to generate roughly 14,300 net jobs between 2025 and 2040, with over 11,600 net jobs, or a roughly 13 times increase, in the offshore wind subsector.

On a net basis, the fossil fuel and hydrogen electricity generation subsectors see the most substantial decrease in employment, declining by approximately 5,500 jobs between 2025 and 2040. This decline is driven by displacement in the fossil fuel generation sectors, offset in part by repowering these plants with hydrogen.

The electricity sector is expected to add roughly 3,000 net construction jobs and 5,000 net manufacturing jobs between 2025 and 2040. The remainder of the net jobs are expected to be added in other supply chain categories, some in professional services, as well as induced jobs across other sectors (see Figure 3).

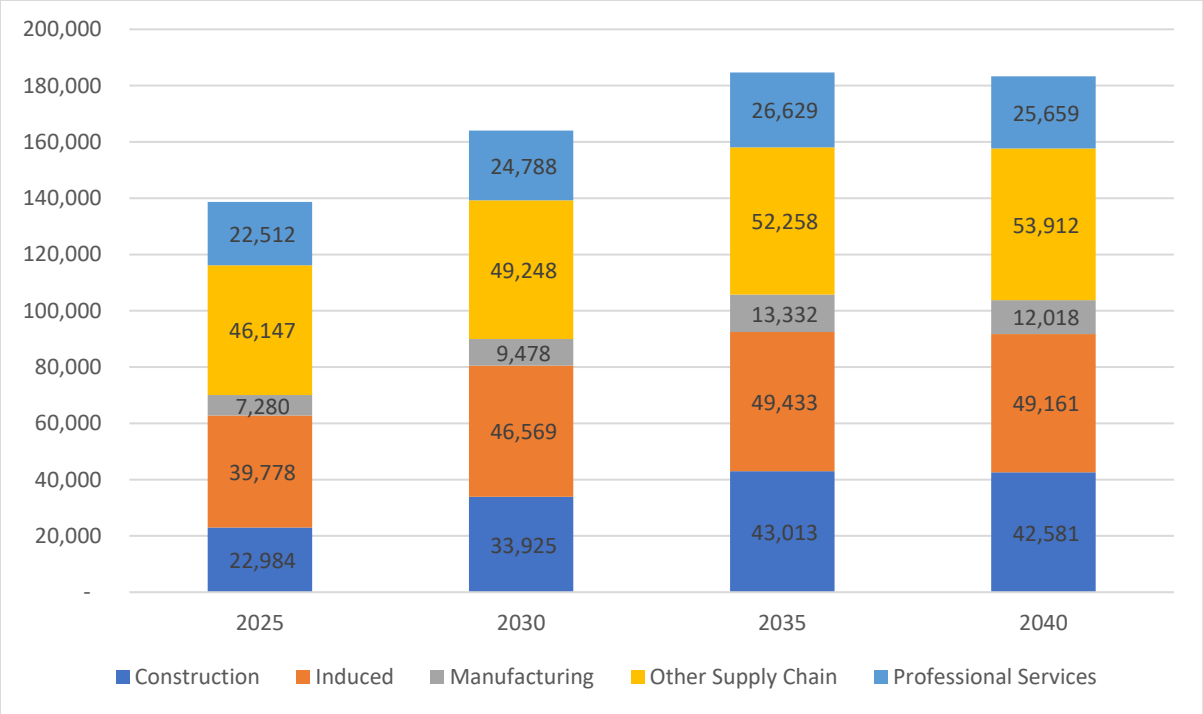

Figure 3. Jobs by Industry, Electricity Sector

4.1. Distribution

The Distribution subsector refers to the delivery of electricity generated from sources to the electrical grid to end users, including homes, businesses, and institutions. This subsector is projected to experience growth of 18,554 jobs (26 percent) from 2025 to2040. Growth is relatively evenly distributed across industries. In 2040, other supply chain categories (39,480 jobs) and professional services (13,530 jobs) make up most of the employment in the subsector.

4.2. Utility Solar

The utility solar subsector involves large-scale solar power plants that generate electricity from photovoltaic panels or concentrated solar power systems. This subsector is expected to experience a substantial increase in employment from 2025 to 2040, gaining 18,966 jobs (408 percent). Categorizing employment increases by industry, most of the growth in utility solar jobs is in construction, which grows by 13,081 jobs (702 percent). In 2040, construction (14,950 jobs) and induced jobs (5,030 jobs) make up most of the employment in the subsector, while other supply chain categories account for 1,850 jobs.

4.3. Distributed Solar PV

The distributed solar PV subsector refers to small-scale solar power systems that are typically installed on rooftops or local properties and generate electricity close to the point of use. This subsector experiences a decrease of 1,341 jobs (-7 percent) from 2025 to 2040, with considerable employment growth between 2025 and 2030, followed by declines between 2030 and 2040. Categorizing employment increases by industry, most of the decline in distributed solar PV jobs is in construction,

shrinking by 776 jobs (-12 percent). In 2040, construction, professional services, and induced employment each account for roughly a quarter of jobs in the subsector.

4.4. Fossil Fuel and Hydrogen Generation

The natural gas generation subsector involves producing electricity by burning natural gas in power plants, typically through combustion turbines, steam turbines, or combined-cycle systems. In the Additional Action scenario, the Natural Gas Generation subsector is projected to experience a decline from 9,627 jobs in 2023 to no employment in 2040. The other fossil fuel generation subsector in the electricity sector refers to the production of electricity using fossil fuels other than natural gas, primarily petroleum-based fuels. These jobs decline from 3,400 in 2024 to none in 2040.

Consistent with the State's clean electricity goals, the Additional Action scenario includes the repowering of fossil plants near retirement to green hydrogen to serve as a clean, dispatchable electricity source. This repowering helps offset many of the jobs that would otherwise be displaced in fossil and gas generation because many of these jobs would remain intact as their generation plant continues to operate with a new fuel source. Overall, roughly 13,000 fossil generation jobs are expected to reduce to 7,000 jobs in hydrogen generation by 2040. On net, this would lead to roughly 5,500 fossil generation jobs being displaced (see Table 4).

Table 4. Jobs, Fossil Fuel and Hydrogen Electric Generation

Sector	2025	2030	2035	2040	Change 2025 to 2040
Natural Gas Generation	9,627	8,206	5,644	0	-9,627
Other Fossil Generation	3,400	3,366	2,942	0	-3,400
Hydrogen	0	0	854	7,439	7,439
Fossil Fuel and Hydrogen Generation	**13,027**	**11,572**	**9,440**	**7,439**	**-5,588**

4.5. Offshore Wind

The offshore wind subsector involves generating electricity from wind turbines installed in bodies of water, typically oceans or large lakes. Net jobs in the offshore wind subsector are projected to expand significantly between 2025–2035, growing from roughly 870 to 16,100 jobs in that period, with construction (3,400 new net jobs) and manufacturing (5,600 new net jobs) making up roughly 60 percent of that growth. After this initial boost in construction work, offshore wind jobs are expected to decrease to 12,400 jobs between 2035 and 2040, losing 3,680 jobs (-23 percent) from 2035–2040. In 2040, induced employment accounts for 33 percent of the projected jobs in the subsector, followed by manufacturing with 30 percent and construction with 21 percent. Recent federal actions put these jobs at risk.

4.6. Land-based Wind

The land-based wind subsector generates power using wind turbines installed onshore. The land-based wind subsector is projected to add 2,787 net jobs (+41 percent) from 2025–2040 with significant growth occurring from 2035–2040, when jobs increase from 6,800 to 9,500 (+39 percent). In 2040, jobs are relatively evenly split across industries: construction and induced employment account for roughly a quarter of jobs each, followed by professional services (18 percent) and manufacturing (17 percent).

4.7. Transmission

The transmission subsector in the electricity sector involves the high-voltage transfer of electricity from power generation facilities to distribution networks. Transmission jobs are expected to increase between the 2030 and 2035 period, when jobs increase from 223 to 356 as a result of investments in that period in the Additional Action scenario. However, overall this subsector is projected to experience virtually no change in employment over the horizon of the plan, with an increase from 207 in 2025 to 224 in 2040 (+8 percent).

4.8. Storage

The storage subsector encompasses technologies and systems that store electrical energy for later use, such as batteries, pumped hydro storage, and thermal storage. Storage jobs are expected to increase as high as 8,200 in the 2025 to 2030 period, largely driven by new construction work, which added 2,000 jobs alone. In 2040, construction jobs make up 42 percent of jobs in this subsector, followed by professional services (22 percent) and induced jobs (21 percent).

4.9. Nuclear

The nuclear generation subsector produces electricity through nuclear fission, where atoms are split to release energy that heats water, creating steam to drive turbines. The nuclear subsector experiences a small decline of 210 jobs (-5 percent) from 2025–2040 with most of that decline happening from 2030-2035.[4] Nuclear jobs are largely concentrated in induced and other supply chain jobs, which includes operations work, and jointly make up 80 percent of the total jobs.

4.10. Biomass

The biomass subsector involves generating power by burning organic materials such as wood, agricultural residues, or waste. It is a form of renewable energy that converts biological material into electricity, often using direct combustion, gasification, or anaerobic digestion. The biomass subsector experiences a decline from 2,939 jobs in 2025 to no employment in 2040 jobs, with this decline projected to occur in the last five years of the plan. While the Additional Action scenario excludes biomass electric generation as a qualifying source of clean electricity, jobs in biomass facilities are not necessarily displaced altogether: many of these facilities, such as pulp and paper mills would likely continue to generate onsite electricity from biomass sources.

4.11. Hydropower

The hydropower subsector generates electricity by harnessing the kinetic energy of flowing or falling water, typically using dams, turbines, and generators. The hydropower subsector experiences a net increase of 2,370 jobs (+30 percent) between 2025–2040, with this increase occurring 2035 and 2040 after employment remaining flat between 2025-2035. More than half of these added jobs are in construction (1,500 jobs).

[4] The Additional Action scenario assumes that all nuclear facilities retire at the end of their 60-year licenses and was conducted before the Governor's June 2025 announcement directing NYPA to pursue a new nuclear plant.

5. Buildings Sector

The New York buildings sector encompasses a wide range of structures, including single-family residences, multifamily residences, and commercial buildings. Overall, the Additional Action scenario results in a consistent increase in employment year-on-year: total net employment increased by 38,853 (+23 percent) in the buildings sector from 2025–2040.

Despite consistent growth at the sector-level, growth is not uniform across the subsectors. The residential shell subsector is projected to experience the highest rate of growth and largest overall growth in employment by 19,693 jobs (+274 percent). The residential heating, ventilation, and air conditioning (HVAC) subsector also sees a substantial increase in jobs, growing by 15,777 jobs (+28 percent) from 2025–2040. The residential Other subsector sees a decrease in employment, declining by 3,700 jobs (-10 percent). The Commercial subsectors sees less employment than their respective Residential counterparts, but all Commercial subsectors sees growth from 2023-2040, ranging from 1,057 jobs (+22 percent) in Commercial Shell, 2,616 (+7 percent) in commercial HVAC, to 3,408 (+13 percent) jobs in Commercial Other.

Table 5. New York Jobs - Building Subsectors

	2025	2030	2035	2040	Change 2025 to 2040
Residential Shell	7,200	16,286	25,466	26,894	*19,694*
Residential Other	35,815	34,679	33,394	32,116	*-3,699*
Residential HVAC	55,594	63,175	67,161	71,371	*15,777*
Commercial Shell	4,772	6,108	6,123	5,829	*1,057*
Commercial Other	26,445	27,914	29,295	29,853	*3,408*
Commercial HVAC	39,619	40,680	41,676	42,235	*2,616*
Buildings Total	**169,445**	**188,840**	**203,116**	**208,298**	***38,853***

The buildings sector is expected to add roughly 15,000 net construction jobs and just under 1,000 net manufacturing jobs between 2025–2040. The remainder of the net jobs are expected to be added in other supply chain (more than 2,000), some in professional services (1,000), and nearly 8,000 induced across other sectors.

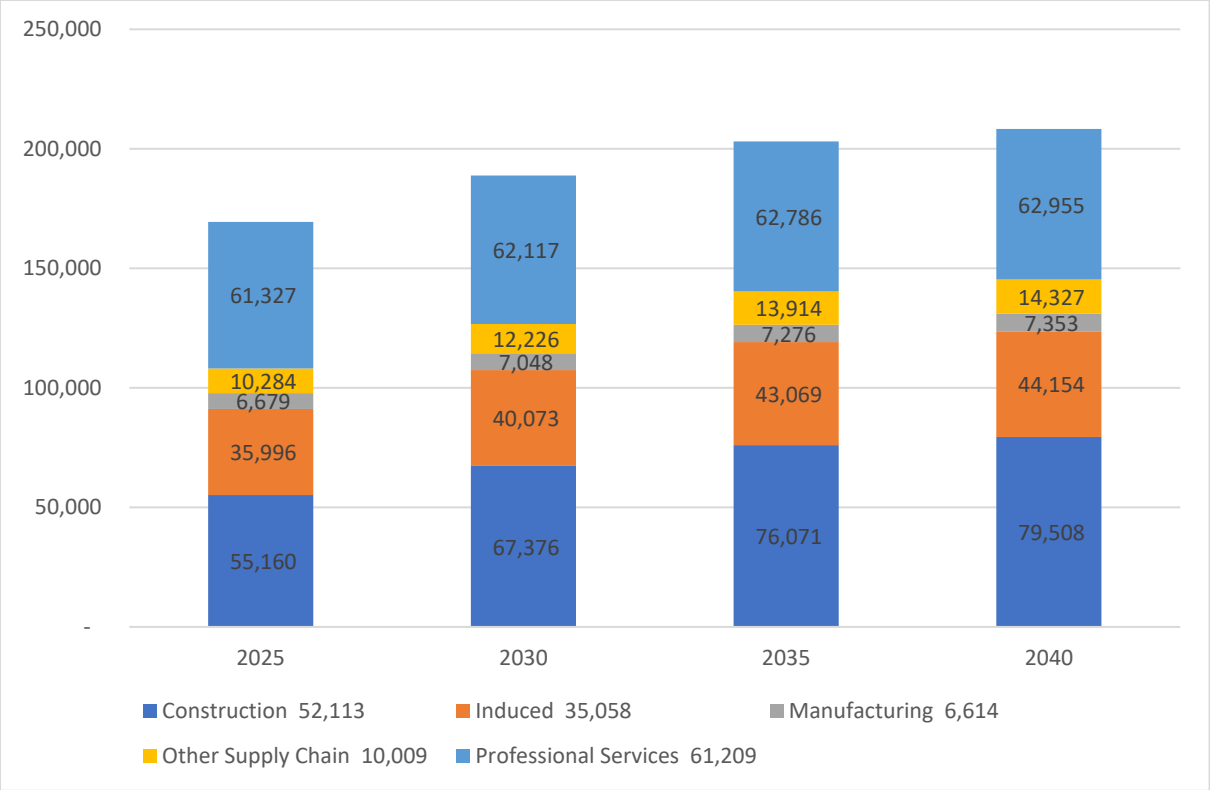

Figure 4. Jobs by Industry, Buildings Sector

5.1. Residential Shell

The residential shell sector includes the construction, upgrade, and maintenance of the building envelope in various types of housing, such as detached and attached single-family homes and multifamily buildings.

The residential shell subsector is projected to experience substantial growth from adding roughly 9,000 jobs in the 2025 to 2030 period and again in the 2030 to 2035 period. Over the full horizon of the plan, this subsector is projected to add 19,694 net jobs, a more than twofold increase from 2025. Increased investments in detached single-family residential building shells drives long-term growth in the subsector. Looking at industries in the subsector, construction has the highest share of jobs, accounting for 51 percent of employment in 2040. Construction jobs have the most substantial increase in the subsector by employment difference, gaining 11,000 jobs (+424 percent) from 2025–2040, while other supply chain jobs see the biggest percentage increase, growing by 538 percent, or 3,000 jobs.

5.2. Residential HVAC

The residential HVAC subsector covers the installation, maintenance, and repair of space heating, ventilation, and air conditioning systems in homes, including single-family and multifamily units.

This subsector is projected to experience growth of 15,777 jobs (+28 percent) from 2025 to 2040. Categorizing employment increases by industry, most of the growth in residential HVAC jobs are in

construction, as it grew by roughly 11,000 jobs (+58 percent). This growth in construction is driven primarily by increased investments in single-family space heating. In 2040, construction (30,910 jobs) and professional services (19,570 jobs) make up most of the employment in the subsector, while induced employment accounts for 14,850 jobs. Manufacturing and other supply chain industries each grew by 16 percent and 25 percent, respectively, although off a smaller baseline.

5.3. Residential Other

The residential other subsector includes a diverse range of energy-using equipment and end-uses in homes that fall outside of core HVAC and building envelope work. This subsector includes clothes washers and dryers, dishwashers, refrigerators, cooking equipment, general and specialty lighting, and refrigeration and water heating systems across single-family and multifamily residential buildings. The other residential subsector is projected to decline by 3,700 jobs (-10 percent) from 2025 to2040, with steady decreases across each period. This decline in employment in the subsector is driven primarily by decreased investments in residential general service lighting and water heating. Looking at industries in the subsector, professional services has the highest share of jobs, accounting for 45 percent of employment in 2040. Construction has the most substantial decline in the subsector, losing 2,614 jobs (-26 percent) from 2025 to 2040

5.4. Commercial HVAC

The commercial HVAC sector involves the installation, operation, and maintenance of heating, ventilation, and air conditioning systems in non-residential buildings to regulate indoor climate and air quality. It includes commercial air conditioning, space heating, and ventilation systems. Increased investments in commercial space heating drove increased employment in this subsector, which experiences consistent year-on-year growth—albeit more moderate than similar work in the residential subsectors—gaining 2,616 jobs (+7 percent) from 2025 to 2040. Most of this job growth is concentrated in construction, which added 1,800 net jobs in that same period. Construction makes up the highest share of jobs, accounting for 70 percent of employment in 2040, followed by professional services (22 percent). Construction also saw the most substantial increase in employment, growing by 2,300 jobs (+17 percent)

5.5. Commercial Shell

The commercial shell sector includes the construction, upgrade, and maintenance of the building envelope in commercial spaces. The commercial shell subsector is projected to add 1,057 jobs between 2025 and 2040. Much of this increase is expected to occur during the 2025 to 2030 period, where jobs climb from approximately 4,700 to 6,100 and remain at that level until 2040, when jobs decrease to 5,800. In 2040, just under half of the jobs in this subsector are in construction, followed by professional service (25 percent) and induced (22 percent). Only a small share of this work is in manufacturing and other supply chain work (jointly 14 percent).

5.6. Commercial Other

The commercial other subsector includes a diverse range of energy-using equipment and end-uses in commercial spaces that fall outside of core HVAC and building envelope work. The subsector includes

commercial cooking equipment, refrigeration units, water heating systems, and various types of lighting, such as general service, High Intensity Discharge (HID), and linear fluorescent lighting. The commercial other subsector saw significant investment in commercial cooking, driving employment, while commercial general service lighting investments declined heavily.

The commercial other subsector experiences an increase of 3,408 jobs (+13 percent) from 2025 to 2040, with growth relatively evenly spread across all periods. In the subsector, construction has the highest share of jobs across the industries, accounting for 70 percent of employment in 2040. Construction jobs also experience the most substantial increase in the subsector, gaining 2,380 jobs (+32 percent) between 2025–2040.

6. Fuels Sector

Overall, fuels jobs are projected to decrease by about 13 percent, or roughly 4,200 jobs between 2025 and 2040. This displacement is driven largely in jobs associated directly with natural gas and petroleum fuels, while projected growth in the hydrogen and biofuels subsectors are projected to offset this displacement somewhat.

Table 6. New York Jobs - Fuels Subsectors

	2025	2030	2035	2040	Change 2025 to 2040
Hydrogen Fuels	-	69	358	864	*863*
Natural Gas	4,390	4,154	3,847	3,538	*-852*
Petroleum Fuels	8,710	7,756	6,283	4,719	*-3,991*
Biofuels	4,925	4,583	4,915	5,394	*469*
Natural Gas Distribution	13,589	14,934	13,881	12,935	*-654*
Fuels Total	**31,616**	**31,496**	**29,284**	**27,449**	***-4,167***

The fuels sector jobs displacement is concentrated in other supply chain work, where the subsector is expected to lose roughly 1,300 net jobs over the course of the plan (see Figure 5).

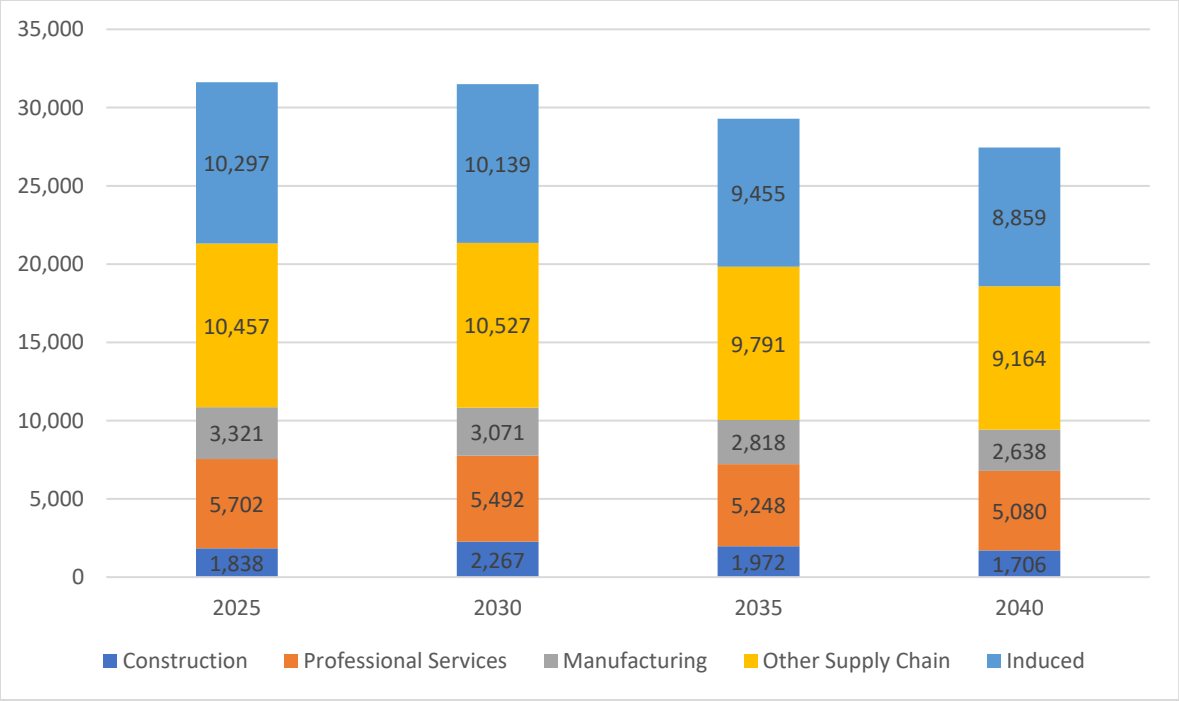

Figure 5. Jobs by Industry, Fuels Sector

6.1. Hydrogen Fuels

Consistent with new hydrogen generation assumptions made in the Additional Action scenario, employment in the hydrogen fuels subsector to grow from zero in 2025 to 864 jobs in 2040. About 36 percent of employment in 2040 is in manufacturing, 28 percent in induced employment, 19 percent in professional services, and 16 percent in other supply chain.

6.2. Natural Gas

Within the Natural Gas subsector, net employment is expected to decrease by 852 jobs, or by 19 percent between 2025 and 2040. Employment is projected to slow somewhat between 2025 and 2030 and again between 2035 and 2040. In 2040, 29 percent of natural gas employment falls into the other supply chain industry group, followed by 18 percent in professional services and 12 percent in manufacturing. Induced employment impacts contribute to 41 percent of the subsector's employment.

6.3. Natural Gas Distribution

The Natural Gas Distribution subsector—which consists of technologies like natural gas pipelines and LNG trucks and tankers—sees small decrease of 655 jobs (-5 percent) in employment from 2025 to 2030 due to marginal decreases in projected consumption and associated decommissioning. Employment is expected to increase in the short term (2025 through 2030) and begins to decline beginning in 2030.

In 2040, other supply chain—which includes the natural gas distribution utility, wholesale and retail trade, transportation, and distribution industries—makes up 38 percent of the jobs, follow by 37 percent in induced jobs. The balance of jobs is spread between construction and professional service, with about 300 manufacturing jobs in the sector throughout the whole horizon of the plan.

6.4. Petroleum Fuels

Employment within the Petroleum Fuels subsector—which consists of technologies like oil and gas pipelines, oil and gas tanker trucks, and delivered fuels such as oil and kerosene—declines steadily from 2025 to 2040, seeing a decrease of 3,991 jobs (-46 percent) across this period. At the industry level, petroleum fuels is split fairly evenly between professional services (18 percent of jobs), manufacturing (23 percent of jobs), and other supply chain (27 percent of jobs). The remaining 28 percent of jobs are supported by induced impacts.

6.5. Biofuels

Employment within the biofuels subsector increases by 469 net jobs (+10 percent) between 2025 and 2040. Employment declines between 2025 and 2030 as ethanol expenditures decline. While ethanol costs continue to decline through 2040, employment begins to rise again after 2030 as renewable jet kerosene and renewable natural gas costs rise.

At the industry level, most biofuels employment is concentrated in professional services and other supply chain, which comprise 37 percent and 34 percent of subsector employment in 2040, respectively. Induced impacts contribute to 20 percent of biofuels employment in 2040, while manufacturing makes up 10 percent of employment.

7. Transportation Sector

The transportation sector is projected to see overall job displacement, offset by meaningful growth in employment related to electric vehicle charging stations, where jobs are projected to increase roughly fourfold between 2025 and 2040 due to increased investments into clean transportation.

In contrast to the strong growth in the electric vehicle (EV) charging station subsector and relatively steady employment numbers in the vehicle manufacturing and wholesale trade parts subsectors across the study years, job displacement is projected in the conventional fueling stations and vehicle maintenance subsectors. Overall employment in the transportation sector remains fairly steady through 2030, but net displacement occurs from 2030 to 2040 as alternative transportation stock increases more rapidly and internal combustion engine vehicle stock decreases more rapidly than previous years.

Total net employment is projected to decrease by 16,210 (-12 percent) in the transportation sector between 2025 to2040. EV charging stations are expected to experience the highest rate of growth and largest overall growth in employment, increasing by 9,957 jobs (+450 percent). Most of the job displacement is concentrated in the conventional fueling stations and vehicle maintenance subsectors, which decrease by 14,081 (-33 percent) and 13,207 (-22 percent), respectively.

The transportation sector is expected to displace roughly 19,000 net jobs within the other supply chain category—such as fuel station operators, maintenance, and repair workers—and another 2,000 jobs that would otherwise be induced. However, this sector will add a net 4,000 construction jobs and 2,000 manufacturing jobs to support the build out of new EV charging infrastructure (see Figure 6).

Table 7. New York Jobs - Transportation Subsectors

	2025	2030	2035	2040	Change 2025 to 2040
Charging Stations	3,206	5,857	10,743	13,163	9,957
Vehicle Manufacturing	14,202	14,186	14,142	14,132	-70
Wholesale Trade Parts	18,387	18,298	18,210	18,124	-263
Conventional Fueling Stations	42,323	39,141	34,264	29,167	-13,156
Vehicle Maintenance	58,689	56,549	51,795	46,012	-12,677
Transportation Total	**136,808**	**134,030**	**129,155**	**120,598**	**-16,210**

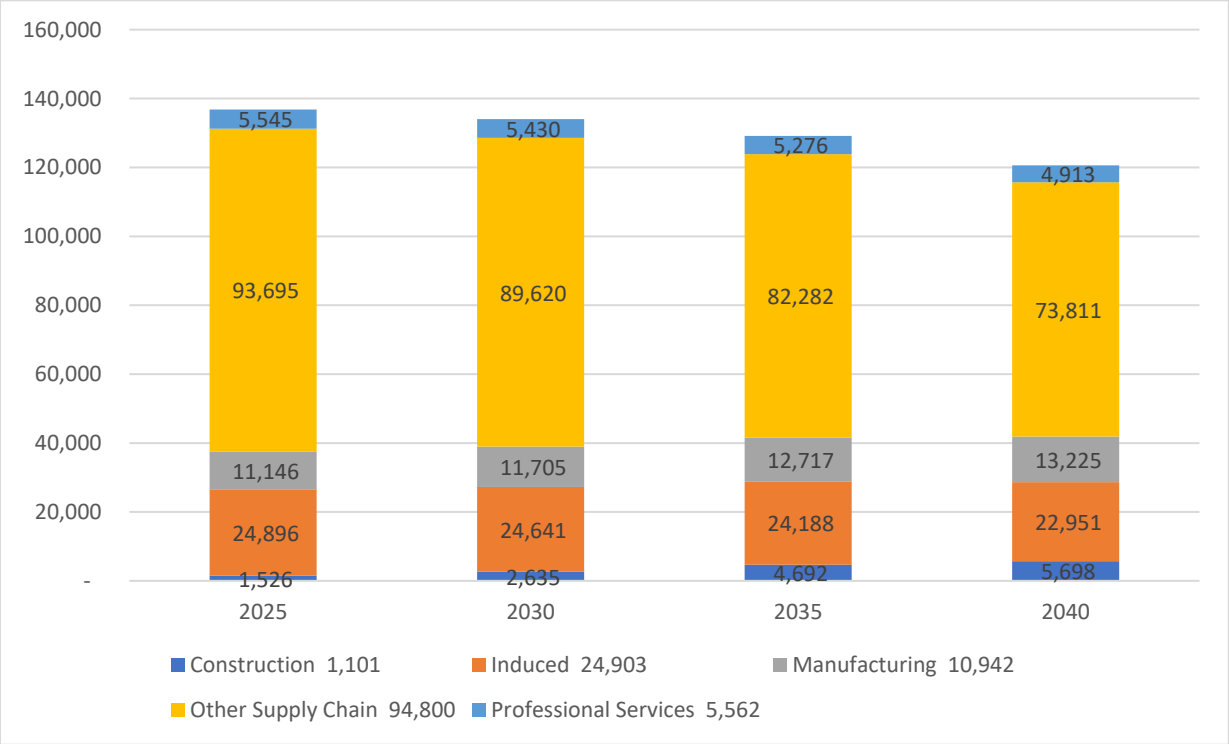

Figure 6. Jobs by Industry, Transportation Sector

7.1. Charging Stations

The EV charging station subsector experiences growth of 9,960 jobs (+311 percent) from 2025 to 2040, with employment gains increasing more rapidly from 2030 to 2040 as charger manufacturing, installation, and maintenance costs rise to accommodate the growth in the State's alternative vehicle stocks. Categorizing employment by industry, about 43 percent of employment in the subsector is concentrated in construction and 21 percent is concentrated in manufacturing across the study years. Professional services and other supply chain make up 7 percent and 6 percent of employment, respectively, while the remaining 23 percent falls into the induced employment category. Construction industry sees the largest absolute employment growth between 2025 and 2040 (4,220 jobs), followed by manufacturing (2,145 jobs). Employment growth is relatively uniform across these industry groups, each increasing by 308 percent to 315 percent relative to their 2025 employment levels.

7.2. Conventional Fueling Stations

The conventional fueling station subsector experiences a decline of 13,156 jobs (-31 percent) from 2025 to 2040. This decline in employment is driven by decreased fuel demand due to declining internal combustion engine vehicle stocks. Employment within this subsector is concentrated in the other supply chain, which encompasses 77 percent of jobs.

7.3. Vehicle Maintenance

The vehicle maintenance subsector declines by 22 percent, or 12,677, from 2025 to2040. This decrease in employment is primarily caused by the difference in maintenance expenditures between alternative vehicles and internal combustion engine vehicles. Alternative vehicles have fewer moving parts compared to internal combustion vehicles, meaning fewer parts that will potentially need replacement as well as a decrease in regularly scheduled maintenance, such as oil changes or changes in transmission fluid, resulting in lower maintenance expenditures.[5] As the composition of vehicle stock in the state shifts to include more alternative transportation and the number of miles traveled in alternative vehicles increases, overall maintenance costs decrease and lead to a decrease in employment.[6]

Vehicle maintenance employment is concentrated in the other supply chain industry group, which comprises roughly 80 percent of employment in the subsector across the study years and decreases by 22 percent over that period.

7.4. Vehicle Manufacturing

Employment within the vehicle manufacturing subsector remains steady from 2025 through 2040, seeing a decrease of only 0.5 percent. Employment in this subsector is based primarily on vehicle sales. While the composition of the types of vehicles sold in this period changes dramatically—with alternative vehicles comprising just 16 percent of vehicle sales in 2025 and 98 percent of vehicles sold in 2040—the total number of vehicles sold remains largely stable across the study years.

Most of the employment (73 percent) is concentrated in manufacturing across the study years, with the remainder of jobs falling into induced employment (25 percent) and some in the professional services industry (2 percent).

7.5. Wholesale Trade Parts

Employment in wholesale trade parts remains relatively stable from 2025 through 2040, seeing a decrease of just 263 jobs (-1 percent) across this period. While the composition of vehicle stocks changes significantly during this time—with alternative vehicles comprising just 6 percent of total vehicle stocks in 2023 to 57 percent of stocks in 2040—the total number of vehicle stocks in the state remains largely unchanged throughout the study period, resulting in stable employment numbers. Employment in wholesale trade parts is concentrated in the other supply chain and professional service industries, which make up 76 percent and 2 percent of employment, respectively, across the study years.

[5] For more information on maintenance costs used for each vehicle type, see https://doi.org/10.3390/wevj5040886.
[6] While vehicle miles traveled (VMT) increases substantially for alternative vehicles from 2023-2040, the overall VMT in 2040 is 4 percent lower than VMT in 2023, potentially contributing to employment decline.