

Economic Impact of the Proposed Piedmont Carolina Lithium Project

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Economic Impact of a Proposed Piedmont Carolina Lithium Project on the Gaston County, North Carolina Economy

EXECUTIVE SUMMARY

The proposed project will be undertaken by Piedmont Carolina Lithium as a single integrated facility that will include three distinct processes; quarrying lithium, spodumene concentration and by-product processing, and spodumene conversion to lithium hydroxide. The operation will be located in northwest Gaston County just north of Bessemer City and east of Cherryville.

Figure E.1 provides a map perspective of the proposed facility in northwestern Gaston County. The different operational components of the facility are detailed on the map. The mining operation is on the eastern side of the facility, with the concentration/aggregation operation in the center and the refining operation in the northwestern part of the facility.

Figure E.1



Table E.1 presents the projected total economic impact of the proposed Piedmont Carolina Lithium project over the first five years of operation. All the dollar values are expressed in 2022

constant dollars. The facility ramps-up operations over a five-year period beginning in 2023. In 2023 the direct output of the project is estimated to be \$6,401,995. The total output impact in 2023 (including supplier chain impacts and induced impacts) is estimated at \$8,141,774. By year 2027, the direct output impact is estimate to be \$533,607,785. The total output impact in 2027 (including supplier chain impacts and induced impacts) is estimated at \$687,844,432.

Table E.1

| Total Piedmont Lithium Project Output Impact | | | | |
|---|-----------------------|-------------------------|------------------------|---------------|
| Year | Direct Effects | Indirect Effects | Induced Effects | Total |
| 2022 | | | | |
| 2023 | \$6,401,995 | \$1,074,806 | \$664,973 | \$8,141,774 |
| 2024 | \$371,817,103 | \$68,786,604 | \$38,031,311 | \$478,635,018 |
| 2025 | \$604,782,806 | \$112,848,666 | \$61,771,033 | \$779,402,505 |
| 2026 | \$582,079,603 | \$107,890,085 | \$59,519,060 | \$749,488,748 |
| 2027 | \$533,607,785 | \$99,752,338 | \$54,484,310 | \$687,844,432 |

Table E.2 presents the combined on-going economic impact and the construction impact by year. In 2025 the total annual impact of construction and on-going operations peaks at \$800,160,540.

Table E.2

| Total On-Going and Construction Output Impact | | | | |
|--|-----------------------|-------------------------|------------------------|---------------|
| Year | Direct Effects | Indirect Effects | Induced Effects | Total |
| 2022 | \$451,893,208 | \$24,531,603 | \$101,794,012 | \$578,218,823 |
| 2023 | \$441,324,902 | \$24,685,155 | \$98,636,235 | \$564,646,291 |
| 2024 | \$374,694,011 | \$68,942,781 | \$38,679,367 | \$482,316,159 |
| 2025 | \$621,005,756 | \$113,729,350 | \$65,425,434 | \$800,160,540 |
| 2026 | \$600,007,281 | \$108,863,312 | \$63,557,471 | \$772,428,063 |
| 2027 | \$552,641,803 | \$100,785,624 | \$58,771,936 | \$712,199,363 |

Table E.3 presents the projected total economic impact of the proposed Piedmont Carolina Lithium project over the first five years of operation. The facility ramps-up operations over a five-year period beginning in 2023. In 2023 the direct employment of the project is estimated to be 140 jobs. The total employment impact in 2023 (including supplier chain impacts and induced impacts) is estimated at 334 jobs. By year 2027, the direct employment impact of the

project is estimate to be 428 jobs. The total employment impact in 2027 (including supplier chain impacts and induced impacts) is estimated at 1,051 jobs.

Table E.3

| Total Piedmont Lithium Project Employment Impact | | | | |
|---|-----------------------|-------------------------|------------------------|--------------|
| Year | Direct Effects | Indirect Effects | Induced Effects | Total |
| 2022 | | | | |
| 2023 | 140 | 98 | 96 | 334 |
| 2024 | 428 | 306 | 317 | 1,051 |
| 2025 | 428 | 306 | 317 | 1,051 |
| 2026 | 428 | 306 | 317 | 1,051 |
| 2027 | 428 | 306 | 317 | 1,051 |

Table E.4 presents the combined on-going economic employment impact and the construction employment impact by year. In 2027 the total annual employment impact of construction and on-going operations peaks at 1.062 jobs.

Table E.4

| Total On-Going and Construction Employment Impact | | | | |
|--|-----------------------|-------------------------|------------------------|--------------|
| Year | Direct Effects | Indirect Effects | Induced Effects | Total |
| 2022 | 199 | 11 | 36 | 246 |
| 2023 | 332 | 109 | 130 | 571 |
| 2024 | 429 | 306 | 317 | 1,053 |
| 2025 | 435 | 307 | 318 | 1,060 |
| 2026 | 436 | 307 | 318 | 1,061 |
| 2027 | 436 | 307 | 318 | 1,062 |

Major Findings of This Report:

- In 2027, the direct output impact is estimate to be \$533,607,785 in constant 2022 dollars.
- In 2027 the total output impact (including supplier chain impacts and induced impacts) is estimated at \$687,844,432 in constant 2022 dollars.
- In 2027 the direct employment of the project is estimated to be 428 jobs
- In 2027 the total employment impact (including supplier chain impacts and induced impacts) is estimated at 1,051 jobs.

- In 2022, the peak construction year, the direct construction job impact is estimated at 199 jobs.
- In 2022 the total employment impact of construction (including supplier chain impacts and induced impacts) is estimated at 246 jobs.
- The cumulative construction total impact of the 2022 through 2027 construction phase is estimated to be \$1,206,456,761 in constant 2022 dollars.

Appendix: Sensitivity Section

The appendix section of the report looks at the economic impact of a proposed lithium mining project on the Gaston County, North Carolina economy based on the assumption that the initial estimates of annual mining activity are increased by 20 percent. This sensitivity analysis is included based on the prospect that the electric vehicle sales in the United States is likely to increase considerably over current estimates during the next decade.

Table A.1 presents the adjusted on-going annual output impacts of the lithium mining project on the Gaston, County economy for the 2023 through 2027 period. Overall, the annual impact will approach \$900 million per year.

Table A.1

| Total Piedmont Lithium Project Output Impact | | | | |
|---|-----------------------|-------------------------|------------------------|---------------|
| Year | Direct Effects | Indirect Effects | Induced Effects | Total |
| 2021 | | | | |
| 2022 | | | | |
| 2023 | \$7,682,394 | \$1,289,768 | \$797,968 | \$9,770,129 |
| 2024 | \$446,180,523 | \$82,543,925 | \$45,637,573 | \$574,362,022 |
| 2025 | \$725,739,367 | \$135,418,399 | \$74,125,239 | \$935,283,006 |
| 2026 | \$698,495,524 | \$129,468,102 | \$71,422,872 | \$899,386,498 |
| 2027 | \$640,329,342 | \$119,702,805 | \$65,381,172 | \$825,413,319 |

Table A.2 presents the adjusted on-going annual job impacts of the lithium mining project on the Gaston, County economy for the 2023 through 2027 period. Overall, the annual impact will support an additional 1,261 jobs each year.

Table A.2

| Total Piedmont Lithium Project Employment Impact | | | | |
|---|-----------------------|-------------------------|------------------------|--------------|
| Year | Direct Effects | Indirect Effects | Induced Effects | Total |
| 2021 | | | | |
| 2022 | | | | |
| 2023 | 168 | 118 | 115 | 401 |
| 2024 | 514 | 367 | 380 | 1,261 |
| 2025 | 514 | 367 | 380 | 1,261 |
| 2026 | 514 | 367 | 380 | 1,261 |
| 2027 | 514 | 367 | 380 | 1,261 |