

Kayne Anderson NextGen Energy & Infrastructure Provides Unaudited Balance Sheet Information and Announces its Net Asset Value and Asset Coverage Ratios at August 31, 2021

Houston, TX – September 2, 2021 – Kayne Anderson NextGen Energy & Infrastructure, Inc. (the "Fund") (NYSE: KMF) today provided a summary unaudited statement of assets and liabilities and announced its net asset value and asset coverage ratios under the Investment Company Act of 1940 (the "1940 Act") as of August 31, 2021.

As of August 31, 2021, the Fund's net assets were \$414 million and its net asset value per share was \$8.77. As of August 31, 2021, the Fund's asset coverage ratio under the 1940 Act with respect to senior securities representing indebtedness was 505% and the Fund's asset coverage ratio under the 1940 Act with respect to total leverage (debt and preferred stock) was 369%.

Kayne Anderson NextGen Energy & Infrastructure, Inc. Statement of Assets and Liabilities August 31, 2021

(Unaudited)

| (| | |
|--|---------------|-------|
| | (in millions) | |
| Investments | \$ | 564.2 |
| Cash and cash equivalents | | 1.7 |
| Accrued income | | 1.8 |
| Other assets | | 1.6 |
| Total assets | | 569.3 |
| | | |
| Credit facility | | 28.0 |
| Notes | | 84.5 |
| Unamortized notes issuance costs | | (0.2) |
| Preferred stock | | 41.5 |
| Unamortized preferred stock issuance costs | | (0.7) |
| Total leverage | | 153.1 |
| | | |
| Other liabilities | | 2.3 |
| Net assets | \$ | 413.9 |

The Fund had 47,197,462 common shares outstanding as of August 31, 2021.

As of August 31, 2021, equity and debt investments were 99% and 1%, respectively, of the Fund's long-term investments of \$564 million. Long-term investments were comprised of Midstream Company (35%), Renewable Infrastructure Company (22%) Utility Company (22%), Natural Gas & LNG Infrastructure Company (19%), Other Energy (1%) and Debt (1%).

The Fund's ten largest holdings by issuer at August 31, 2021 were:

| | | Amount (in millions) | Percent of Long-Term Investments* |
|-----|---|-------------------------|---|
| 1. | Enterprise Products Partners L.P. (Midstream Company) | \$36.3 | 6.4% |
| 2. | Targa Resources Corp. (Midstream Company) | 34.9 | 6.2% |
| 3. | The Williams Companies, Inc. (Natural Gas & LNG Infrastructure Company) | 27.2 | 4.8% |
| 4. | Cheniere Energy, Inc. (Natural Gas & LNG Infrastructure Company) | 25.7 | 4.6% |
| 5. | Brookfield Renewable Partners L.P. ** (Renewable Infrastructure Company) | 25.5 | 4.5% |
| 6. | MPLX LP (Midstream Company) | 25.0 | 4.4% |
| 7. | Energy Transfer LP (Midstream Company) | 24.5 | 4.3% |
| 8. | TC Energy Corporation (Natural Gas & LNG Infrastructure Company) | 20.8 | 3.7% |
| 9. | NextEra Energy Partners, LP (Renewable Infrastructure Company) | 19.5 | 3.5% |
| 10. | Atlantica Sustainable Infrastructure plc (Renewable Infrastructure Company) | 18.0 | 3.2% |

* Excludes cash.

** Includes ownership of Brookfield Renewable Partners, L.P ("BEP") and Brookfield Renewable Corporation ("BEPC").

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Kayne Anderson NextGen Energy & Infrastructure, Inc. (NYSE: KMF) is a non-diversified, closed-end management investment company registered under the Investment Company Act of 1940, as amended, whose common stock is traded on the NYSE. The Fund's investment objective is to provide a high level of total return with an emphasis on making cash distributions to its stockholders. The Fund seeks to achieve its investment objective by investing at least 80% of its total assets in securities of Energy Companies and Infrastructure Companies. The Fund anticipates that the majority of its investments will consist of investments in "NextGen" companies, which we define as Energy Companies and Infrastructure Companies that are meaningfully participating in, or benefitting from, the Energy Transition. See Glossary of Key Terms in the Fund's most recent quarterly report for a description of these investment categories and the meaning of capitalized terms.

This press release shall not constitute an offer to sell or a solicitation to buy, nor shall there be any sale of any securities in any jurisdiction in which such offer or sale is not permitted. Nothing contained in this press release is intended to recommend any investment policy or investment strategy or take into account the specific objectives or circumstances of any investor. Please consult with your investment, tax, or legal adviser regarding your individual circumstances prior to investing.

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Contact: Investor Relations at (877) 657-3863 or cef@kaynecapital.com

Portfolio holdings are subject to change without notice. The mention of specific securities is not a recommendation or solicitation for any person to buy, sell or hold any particular security. You can obtain a complete listing of holdings by viewing the Fund's most recent quarterly or annual report.