ALBANY — As the fraught and expensive battle to control the New York State Senate comes to a climax on Tuesday, there is already one likely winner.

No, not the Republicans, who currently lead the Senate, or even the Democrats.

The only seemingly sure thing? Senator Jeffrey D. Klein, leader of the Independent Democratic Conference, a band of renegade Democrats who have worked hand in hand with the Republican majority for the last four years.

Mr. Klein has seen his breakaway coalition morph from an annoyance and a curiosity into a legitimate island of power; this year, his group added Marisol Alcantara, the Democratic nominee for the Senate district covering neighborhoods in northern and western Manhattan.

On Monday, the conference added its seventh member: Senator Jesse Hamilton, a Brooklyn Democrat, who said in a statement that he joined the coalition because “they get results.”

The biggest question in Albany is whom will Mr. Klein, who represents parts of the Bronx and Westchester County, align with if there is a new Democratic majority. And while no one knows for certain, one thing seems clear: It is good to be the Independent Democratic Conference.

“They are in the catbird’s seat,” said Douglas Muzzio, a professor of political
science at Baruch College, adding: “Ah, to be Jeff Klein...”

When asked about his plans, Mr. Klein, in a brief statement, said only that his conference “will remain a separate third conference” that will “work with legislators who share in our passion and commitment for getting results for the people of New York.”

But political scientists who study the odd machinations of New York’s Senate — where the current Republican leadership is maintained only because another rogue Democrat, Simcha Felder of Brooklyn, votes with the Republicans — seem to think the betting money is on Mr. Klein siding with his own, as his party also hopes.

“I would certainly hope that as Democrats that we’re able to come together to have a majority to move this state in the right direction,” said Senator Michael N. Gianaris of Queens, who serves as the party’s chief political strategist in Albany. “We’ve always said that everyone elected as a Democrat should work together.”

Mr. Klein has met with the leader of the Senate Democratic Conference, Andrea Stewart-Cousins, and other top Democrats several times in recent weeks. But Republican leaders note that Mr. Klein is also close with the current majority leader, John J. Flanagan, a Long Island Republican whom he speaks with regularly.

“We have a strong working relationship with Senator Klein and the members of the I.D.C., and have every expectation that our coalition will continue to deliver real results for New Yorkers and their families,” Scott Reif, a spokesman for the Senate Republicans, said.

The X-factor in many calculations is Gov. Andrew M. Cuomo, a Democrat who has also worked closely with Republicans during his nearly six years in office. “I think Klein will try to make a deal with the Democrats first,” Eric Lane, dean of the Hofstra Law School and a former counsel for the Senate Democrats, said, “because I think the governor will try to push him in that direction.”

Professor Muzzio said that the governor had seemed comfortable working with Republicans during his first term, when recession-inspired fiscal austerity was en vogue. But in Mr. Cuomo’s second term, Mr. Muzzio said, he has tilted to the left,
with issues like a $15 minimum wage and a paid family leave program. (The Independent Democratic Conference takes credit for such accomplishments.)

“Those are part of Andrew’s promises and legacy,” Mr. Muzzio said.

Mr. Cuomo, who did only scant campaigning for his party mates in 2014, has been a more active force this campaign cycle, appearing at several fund-raisers over the last month and preaching Democratic unity.

At one of those events, on Oct. 25, Mr. Cuomo said his ideal option would be to elect enough Democrats to make a clear majority, though he stopped short of a prediction of that being just mainline Democrats.

“There is always the option of making a coalition with the independent Democrats,” the governor said. “I worked with them for six years. But between Option A or Option B, it has to be one of those options.”

Gerald Benjamin, a professor of political science at the State University of New York at New Paltz, said that Mr. Klein’s success might also hinge on mainline Democrats winning some seats, but not so many as to render it mathematically impossible for the Republicans to form a 32-member majority with the seven independent Democrats.

“His power is, in fact, contingent on Flanagan avoiding collapse,” Professor Benjamin said. “They have to remain viable.”

For their part, the Republicans scoff at the notion of a Democratic majority — “The last thing people want is the same old policies being advocated by the Senate Democrats,” Mr. Reif said — though Democrats have high hopes of picking up seats in Nassau County and the Hudson Valley.

Mr. Klein formed the breakaway group in 2011. He then shocked his fellow Democrats in late 2012 when he announced that he was exploring forming a “bipartisan coalition” with Republicans, a decision that other Democrats felt was opportunistic at best, and treasonous at worst.

The benefits for Mr. Klein, however, have been obvious. He has enjoyed a seat at
the table during the major negotiations over the state’s budget and other major policy pushes, as well as perks like larger offices and staffs.

Ms. Alcantara was wooed to Mr. Klein’s camp by Senator Diane J. Savino, a Staten Island Democrat who befriended and mentored her during her primary campaign.

The benefits for Ms. Alcantara — she faces three opponents on Tuesday, but is heavily favored to win — are also clear: She stands to wield more clout than a freshman senator ordinarily might, and says she plans to focus on strengthening rent laws to address the affordable housing crisis in her district and on passing the Dream Act, which would grant state tuition assistance to undocumented students.

Other members of the faction, Ms. Alcantara added, had the same goals.

“I think I share the views of everybody in the I.D.C. — we want to get things done and deliver for our communities and our district,” she said.

Mr. Klein has been guarded about what he might do, policy-wise, if he assumes a more powerful position in the Senate. He would not comment on any possible plans for the 2017 legislative session, and said only that the group would champion “issues facing working- and middle-class New Yorkers.”

Regardless of the eventual power structure, it seems unlikely that Mr. Klein will ascend to the position of majority leader if Democrats take control of the Senate, in part because of some vestigial resentment over his association with Republicans and also because New York City Democrats would likely want a black or Latino member to lead. (Ms. Stewart-Cousins is African-American.)

“Here’s my prediction,” Professor Lane, of Hofstra Law, said. “There’s going to be very serious negotiations going on.”

Vivian Yee contributed reporting from New York.