Five-Year Forecasts Show Stable Power Costs for Member Utilities

There is good news and bad news in the five-year power cost forecasts that MMWEC completed recently for its member municipal utilities. The bad news is that electric capacity and transmission costs are expected to increase dramatically over the next few years. The good news is that, for the most part, those higher costs will be offset by the benefits of MMWEC’s capacity ownership, a fine-tuned power hedging program and the retirement of MMWEC’s outstanding debt.

The net result is relatively stable power prices for MMWEC member utilities over the next five years, a time when bulk power costs for other utilities will be increasing.

“All in all, it’s pretty good news for the members participating in MMWEC’s power supply projects,” said MMWEC CEO Ron DeCurzio. “But the future of this business is now, and the plans we’re implementing today will help us maintain a competitive edge further into the future,” he said.

Electric capacity prices are set in ISO New England’s Forward Capacity Market auctions, which are used to procure capacity three years in advance of when it is needed. In the last three Forward Capacity Auctions, which procured capacity for the power years beginning in June 2016, June 2017 and June 2018, New England capacity costs soared from $1.06 billion, to $3.05 billion and to $4.24 billion in the last auction.

In addition to these escalating capacity costs, the cost of electric transmission service is expected to increase an additional 25% over the next five years, from 1.9 cents per kilowatthour (kWh) to approximately 2.4 cents/kWh. Transmission costs are increasing due to the build-out of power lines in the region, with the value of regional transmission facilities projected to increase from approximately $8 billion to more than $11 billion by 2020.

MMWEC is continuing its fight to contain these costs via litigation to reduce the profit transmission owners can earn on their investments (See article below).

Rising capacity costs for member utilities are largely offset by MMWEC’s ownership of approximately 735 megawatts of electric generating capacity. Participants in MMWEC power supply projects have entitlements to capacity in those projects.

Although members’ capacity costs will increase from less than $40 million currently to more than $100 million in 2019, the value of MMWEC-owned capacity that members use to offset their capacity obligation will increase from about $20 million to $60 million over that same period.

After issuing more than $4.7 billion in bonds since 1976 to finance and refinance its ownership of various power plants, the remaining $11.25 billion in outstanding MMWEC debt will be retired by 2019. As a result, MMWEC’s member project participants will no longer be required to make principal and interest payments on MMWEC debt, significantly reducing the total cost of power from MMWEC’s power supply projects.

MMWEC’s power portfolio management activities, or power hedging program, is another important element in bringing price

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Trial Concludes in Transmission Rate Case; MMWEC Appeals Initial FERC Ruling

A six-day trial concluded this summer on two transmission rate complaints before a Federal Energy Regulatory Commission (FERC) judge, who is hearing arguments by MMWEC and other parties seeking to recoup millions of dollars in transmission costs billed to Massachusetts electric customers since 2012.

A favorable decision also would reduce transmission costs significantly going forward.

Meanwhile, MMWEC and others are appealing to the U.S. Court of Appeals, District of Columbia Circuit, an October 2014 FERC decision setting the base rate of return on equity (ROE) for New England Transmission Owners at 10.57 percent. MMWEC has argued for a base ROE in the 9 percent range. The base ROE is the amount of profit transmission owners are allowed to earn on their investments in New England transmission facilities.

MMWEC, along with the Massachusetts Attorney General, the Connecticut Public Utilities Regulatory Authority and others argue in their appeal that the 10.57 percent ROE is too high and does not reflect current market conditions that allow transmission owners to finance large-scale projects at historically-low interest rates.

New England Transmission Owners contend that the base return on equity should be 11.14 percent, which they say is necessary for them to attract financing for costly improvement projects.

MMWEC and others recommend that FERC set the base ROE at the median point in a range of potential rates instead of the midpoint of the upper half of that range. The 10.57 percent ROE is at 75 percent of the so-called “proxy group” range instead of

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MMEC's largest generation asset is the Stony Brook power plant, located on the site of MMEC's corporate headquarters in Ludlow. In addition to being a valuable resource for the 25 Massachusetts municipal utilities and six Vermont utilities that are Stony Brook Project Participants, Stony Brook is a unique and valuable asset for ISO New England (ISO-NE).

Stony Brook's Intermediate Unit is a 354-megawatt combined cycle, gas and oil-fired unit. The Peaking Unit is a 172-megawatt oil-fired simple cycle unit.

Stony Brook provides a long-term hedge for participants against both capacity and energy volatility. Stony Brook participants use their unit entitlements to offset their ISO-NE capacity supply obligations, a benefit that has increased significantly in value due to the recent increases in capacity prices. In addition, Stony Brook generally is dispatched by ISO-NE during higher energy price periods, producing revenue during volatile times to offset participants' energy expenses.

Because of its agility, the SBEC units can participate in ancillary services markets – namely the 10-minute and 30-minute forward reserve markets, which provide additional revenue value. To qualify for participation in these markets, generators must be fast-start units available to run during all on-peak hours. Stony Brook units 2A and 2B are 10-minute units, meaning they can be brought from cold to full-load in 10 minutes; Unit 1B qualifies as a 30-minute unit. While the unit is rarely called on to run, it must be reserved to run when called upon by ISO-NE. MMWECC receives payments for this ability to run, even when the Stony Brook units remain idle.

Stony Brook is unique in its large capacity for oil storage. Four-hundred-thousand barrels, or 17.3 million gallons, can be stored on site, one of the largest oil storage capacities in Western New England. This ensures that Stony Brook will have fuel during winter cold snaps when oil is in high demand and pipelines may be congested.

It also enables the plant to participate in the ISO-NE Winter Reliability Program, in which generation assets are compensated for on-site oil storage. This helps ISO-NE ensure reliability of the system during peak winter periods when natural gas supplies may be constrained.

Stony Brook also has black start capabilities, including 4 megawatts of diesel generation that starts without an off-site power source. The diesels produce enough power to start two of the plant's gas turbines, which would help to reenergize the entire New England power grid in the event of a system blackout. This capability allows SBEC to participate in ISO-NE's black start market, which provides additional revenues for MMWECC and its Stony Brook participants.

Located on a 350-acre site, the Stony Brook infrastructure includes a 345 kV electrical transmission line capable of supporting additional generation, a 20-inch natural gas transmission pipeline, a 12-inch fuel oil pipeline and an 11-million gallon on-site water storage tank.

Natural gas and oil pipelines eliminate the need for any over-the-road transportation of fuel to the SBEC site, and permit the purchase of fuel in large quantities at competitive prices. The water storage ena-

Two diesel generators, above, enable Stony Brook participation in ISO-NE's black start program.

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**Dwindling MMWECC Debt**

MMEC retired approximately $54 million in bonds on July 1, 2015, leaving $112.5 million in MMWECC Power Supply Project debt outstanding. All of this debt, associated with MMEC's ownership in Seabrook Station and Millstone Unit 3, will be retired by 2019, as shown in the chart at left.

The debt retirement will reduce power costs for MMWECC project participants, offsetting a portion of the increase in electric capacity and transmission costs over the next several years.

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MMWEC Prepares for GridEx III, NERC’s Sector-Wide Security Exercise

MMWEC is preparing to participate in the third GridEx, a nationwide security exercise facilitated by the North American Electric Reliability Corporation (NERC), taking place this November. MMWEC has participated in the biennial event since the inaugural exercise in 2011.

For the third time, MMWEC will serve as an “Active” participant, becoming fully involved in the simulated cyber-security and physical security threats and incidents designed to test the resiliency of the continent-wide Bulk Power System. MMWEC’s planners have been immersed in NERC’s nine-month planning cycle for the exercise.

The objectives of GridEx III are to exercise crisis response and recovery; improve communications; identify lessons learned, and engage the senior leadership of owners and operators of the nation’s critical electrical infrastructure.

As an “Active” participant, MMWEC will take part in the exercise from MMWEC administrative offices and the Stony Brook power plant. Participants receive sequenced email messages that detail simulated scenario conditions during the course of the two-day event. Based on this information, players respond with simulated incident response activities which may include internal and external communications. There is no actual impact to the operation of the electric grid during the exercise.

MMWEC has designated a lead planner, planner and “players,” who are staff members who will be part of MMWEC’s response to the scenario. MMWEC Information Technology, Stony Brook Energy Center and Communications staff will be involved in the exercise.

MMWEC uses GridEx to execute required tests of its incident response procedures, including internal communications and communications with other bulk power system and law enforcement entities.

An exercise control cell, based in the Washington, D.C. area, will manage scenario distribution, monitor the exercise and gather lessons learned.

Organizations that choose not to serve as “Active” participants can be “Observing” organizations. They participate in a less resource-intensive manner but can benefit by considering how a major security event that impacts the electric grid would affect their operations, but work is continuing to contain costs going forward.
MMWEC Officers and Directors Sworn In

MMWEC officers and directors sworn in at the July 8, 2015 board meeting, left to right, are MMWEC CEO Ronald C. DeCurzio, Chairman Michael J. Flynn, President Peter D. Dion, General Counsel Peter H. Barry, Director Kevin P. Kelly and Treasurer Matthew J. Ide.

Also taking the oath of office were Assistant Treasurer Stephen J. Smith and Assistant Secretary Nancy A. Brown.

Other MMWEC directors are Sean Hamilton, James M. Lavelle, Jeffrey R. Cady, Glenn Trueira, Gary R. Babin, Jonathan V. Fitch, Charmaine White, Luis Vitorino and Cornelius Flynn.

Massachusetts Municipal Wholesale Electric Company

MMWEC

A non-profit, public corporation and political subdivision of the Commonwealth

Joint Action and economies of scale for Massachusetts municipal utilities

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