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WHITE PAPER

A New Era of Large Capital Projects Is Taking Electric Co-Ops Into Unfamiliar Territory

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As megawatt demand in the U.S. continues to spike — particularly from new hyperscale facilities and new system loads — power cooperatives are attracting attention as potential sources of new generation and transmission capacity. However, these new power demands will require capital spending that will take many smaller co-ops into unfamiliar territory. Co-ops are seeking funding from private capital markets as well relying heavily on IRA- and IIJA-backed programs for projects that are far larger than any they have traditionally taken on.

Due to their competitive rate structures and service territories predominantly in sparsely populated areas, many local distribution co-ops are positioned to offer attractive development sites for new large-load facilities. However, this trend is taking the traditional cooperative business model far afield from its original mission of bringing power to remote corners of rural America.

Not-for-profit, member-owned electric utility co-ops trace their origins to the Rural Electrification Act (REA) of 1936. The REA — part of President Franklin Roosevelt's New Deal — created co-ops as a way to bring power for the first time to small communities and surrounding farms by pooling resources to collectively build, own and operate their own power infrastructure. This was a highly successful program, bringing electricity to 97% of rural homes by 1960.

These local distribution utilities generally purchase power from generation and transmission cooperatives (G&Ts) that also trace their roots to the REA. Like distribution co-ops, the G&Ts are structured under the concept of pooled resources, not-for-profit operations and governance by their members. Governed by boards comprised of the leadership of the local distribution co-ops they serve, G&Ts have built, owned and operated generation plants and transmission assets for decades, giving them an instrumental role in providing the economical and reliable power that has defined the power co-op movement for many decades.

For example, Basin Electric Power Cooperative in the Dakotas is a successful example of the G&T model. Today, it is among the largest G&Ts in the nation, having grown since its founding by pooling

resources from its members to gain the scale needed to fund construction of several large power projects. These projects have been aided by taking advantage of low-interest, government-backed loans. A longtime Burns & McDonnell client, Basin today owns and operates a large, diversified fleet of generating assets.

Different Approaches to Similar Challenges

Not-for-profit, public and investor-owned utilities are facing the same forces driving them to construct large new power plants and related infrastructure. Despite differences in business models and capital structures, all types of utilities face similar headwinds in securing the capital needed to fund what are becoming $1 billion+ projects.

As for-profit entities, investor-owned utilities (IOUs) are far more familiar with the debt and equity capital markets than their member-owned industry peers. IOUs are heavily regulated by various regulatory agencies, including state public utility commissions that establish the ability to achieve target percentage rates of return on the equity portion of their balance sheets. Rates of return on invested capital are critical factors in allowing them to attract capital from bond investors. Healthy rates of return also help to attain competitive rates assigned by the underwriters of bonds and other fixed income instruments needed to finance projects that often run into multiple billions of dollars.

The mix of debt and equity on a utility's balance sheet is one of several factors that indicate its relative financial strength, a crucial factor that helps determine the utility's credit rating on its fixed income securities. The credit ratings set by nationally recognized statistical rating organizations (NRSROs), like Standard & Poor's, Fitch and Moody's, are the benchmarks that underwriters of bonds and other types of fixed income securities rely on in determining a utility's relative creditworthiness. Higher ratings allow an underwriter to market bonds and other types of fixed debt instruments at lower interest rates, which in turn reduces interest payments for utilities. Lower debt service payments can reduce the amount of rate relief the utility may need to seek from regulators.

Further, utilities with subpar credit ratings — those that are below certain investment grade thresholds — are effectively shut off from a large segment of investors like pension funds that are not allowed to invest in lower-grade securities.

Public utility regulation and the interplay of capital markets are realities that most distribution co-ops have historically not had to deal with. While the larger G&T co-ops are players in the fixed income capital markets — and maintain credit ratings with the major rating agencies — capital project funding for distribution co-ops is markedly different.

Most of the funding for smaller-scale distribution projects has traditionally been provided under the Rural Utilities Service (RUS), an agency that operates under the umbrella of the U.S. Department of Agriculture. The RUS loans for distribution system improvements usually carry below-market interest rates, with those financing costs repaid through the rates charged to members. Any revenue collected in excess of that needed to pay debt service and general operating expenses is accumulated under patronage capital for future investment needs and returned to members from time to time.

Other financing doorways also have recently been opened under provisions of the Inflation Reduction Act (IRA) of 2022 and the Infrastructure Investment and Jobs Act (IIJA) of 2021. Among other options, the IRA expanded the ability of co-op utilities to obtain funding from direct-pay tax credits as a revenue source that can help offset some costs of large capital projects. Although small distribution and generation co-ops can benefit greatly from these funding sources, many struggle to integrate them into their own capital planning in a manner that meets the grant/loan provisions.

Though some of the capital needed by G&T co-ops for their much larger projects has been provided under RUS programs in the past, private capital is now squarely in the mix. This has been necessitated by the nature of the new load and the need to build new generation to service this load. In many cases, the new generation does not benefit the entire community and instead may serve a concentrated load such as a data center. If access to RUS funding is not assured, in such cases a commercial solution may be called for.

The Page Is Turning

An increasing number of distribution co-ops face calls to meet a large jump in load caused by the disproportionate demand from a single large customer in their service territory. The conventional option of acquiring additional incremental power from the G&T provider or through power purchase agreements on the open market is increasingly difficult.

The risk profile has changed such that in most regions independent power producers and G&T co-ops no longer have capacity buffers that allow them to enter into long-term purchase agreements with distribution co-ops. Though that pathway would be ideal in providing low-cost power, much of the available power capacity in most regions of the country is already spoken for.

Co-ops, like all utilities, also face the need for improved system resiliency and capacity reserve margin adjustments to offset the risks posed by an increasing number of extreme weather events.

All these factors are forcing co-ops — from small and midsize to larger distribution utilities — to begin looking at projects that may

require more capital than they have ever needed prior to today, and from sources that they have not used before.

Co-op boards are increasingly asking: How can I navigate through a large capital investment program that may double or triple the size of my balance sheet? What are the ramifications of expending capital resources on meeting demand from a single large customer that could one day curtail operations and strand these assets?

These scenarios of massive new loads coming their way are prompting co-ops to begin more sophisticated capital planning and seriously considering nontraditional financing options for construction of new capital assets.

Novel Solution in Tennessee

Demand for additional peaking power needed to meet new load has resulted in a new approach by the Tennessee Valley Authority (TVA). Normally, any new demand in regions served by the federal power agency would be met by building new generation. However, TVA operates under a congressionally mandated debt limit capping its borrowing capacity at $30 billion, thus limiting its ability to build new generating resources with borrowed funds. Consequently, it is struggling to directly supply all the new load.

TVA is actively soliciting generation capacity to meet growing energy demands in its seven-state region. This includes a request for proposals (RFP) for firm electricity generation from outside power producers, including its own distribution partners.

A solution has been proposed by the Tennessee Power Distribution Co. (TPDC), a consortium of local distribution co-ops that are served by the TVA. TPDC has proposed to build, own and operate new power generation assets and sell the capacity to the TVA, which would then supply the power needed by large loads in the area and by its member distribution co-ops. This has created an opportunity for Tennessee area distribution co-ops to step into the generation business and take some control over their own generation needs.

Basin Turns to Its Members

Basin Electric, a North Dakota-based G&T serving 139 distribution co-ops spread across nine states, also is facing unique demands for new power capacity outside its traditional business model.

The continuing productivity of oil and gas fields in North Dakota and other areas served by Basin Electric's member co-ops is resulting in massive swings in load that will require more than a gigawatt of new generation and transmission capacity.

Basin Electric is open to supplying power to large-load customers, but is adamant that the ultimate solution must not result in undue rate pressure borne by its member distribution co-ops. Basin recently formed a large-load commercial program designed to give it the flexibility to serve new large loads while also mitigating risks of stranded assets should new customers cease operations.

Basin Electric is already committed to meeting a portion of its anticipated new load growth with the construction of the Bison Generation Station, a 1,490-MW combined-cycle gas facility to be located near Epping, North Dakota. As one of the largest generation projects in Basin's history, the added power will help meet rising demand from member distribution co-ops who are on the front lines in fielding calls for more power from oil and gas producers operating in their service territories.

Looking Beyond Generation

While rural cooperatives focus mostly on distribution, reliability and resilience of the transmission system is another emerging issue they must respond to. According to some estimates, approximately 200,000 miles of existing transmission infrastructure will require replacement over the next decade, and a significant portion of this infrastructure connects to rural distribution co-ops. These co-ops are often ill-served by major transmission operators and ill-suited to finance these projects with their own resources.

The Department of Energy's $10.5 billion Grid Resilience and Innovation Partnerships (GRIP) program provides a much-needed source of funding to rural co-ops experiencing transmission challenges. GRIP was created in 2021 through the IIJA (also known as the Bipartisan Infrastructure Law) to enhance grid flexibility while providing access to affordable, reliable power.

In the latest round of the GRIP funding, 23 cooperatives, rural utilities and affiliated organizations received about $650 million in transmission project funding. These co-ops are still responsible for providing a 50% cost share of the project budget. This is a considerable financial burden, given the scale and scope of operations for many distribution co-ops. Even though there is significant federal and state funding available, planning for and arranging the matching funds is often challenging for these co-ops, requiring financial and project management staff resources that often are not available.

New Backstops Are Needed

As power demands continue to rapidly evolve, it is clear that co-ops — both distribution and G&Ts — are well positioned to provide attractive solutions. However, there are a number of new considerations.

Providing solutions for large customer loads — ranging from data centers, to oil producers, to auto and battery manufacturers — requires more than engineering solutions. Building new generation that may benefit only one or a few concentrated loads is not consistent with the egalitarian nature of the co-ops. Consequently, using traditional sources of financing that rely on passing along the

cost to all customers may not be well-suited. Financial solutions that quantify the risks and rewards must be part of the equation as well.

Both public and not-for-profit utilities will increasingly turn to private capital markets for the financing they need to meet surging power demands, as traditional sources may not be available to meet all their financing needs. In the future, co-ops will interact with commercial lenders, debt capital markets and credit rating agencies. These interactions will require a level of sophisticated financial knowledge that has not been required to date.

Because of the changing landscape and the various limitations of their traditional suppliers, co-ops and rural utilities may also step into new roles as generation and transmission service providers. This will necessitate new approaches to capital planning and funding solutions.

The new role for co-ops also requires a rethink of the accumulation and distribution of patronage capital. Previously, customers' claims to the patronage capital were proportional to their use of the energy supplied by the co-op. In the current environment, it may be common to have a large part of the revenue originated by a concentrated load, with surplus capital accumulating from windfall events such as the sale of generation or transmission assets. In such cases, co-ops may decide on a new approach to assigning patronage capital.

It's clear that the federal government backstop needs to be recalibrated for not-for-profit power entities. Federal loan programs were designed for a different era, and the traditional co-op mission of bringing power to sparsely populated regions has largely been fulfilled. As a range of new demands and challenges face the cooperative utility industry, the tried-and-true method of aggregating resources still is a viable solution. However, as a plethora of smaller entities step up to meet the challenge of larger capital projects, turning to third-party consultants with both engineering and financial resources under one roof can provide a needed jump start.

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