

Four Steps to Building a Successful Electric Vehicle Make-Ready Program



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As decarbonization efforts have proliferated, electric vehicles (EVs) are widely seen as essential to meeting state and local clean energy goals. However, in order to meet the charging needs of EVs, significant charging infrastructure will need to be developed. As states and regulators consider how to foster EV adoption, make-ready programs have emerged as an increasingly popular option. As of March 2021, 15 utilities across the United States have announced make-ready programs with a collective budget of more than \$1 billion.

Utilities will play a key role in building out the nation's EV-charging infrastructure. As with all customers, it falls to utilities to plan and construct the infrastructure needed to support new loads. However, there are various approaches to paying for new electric infrastructure. For traditional projects, utilities cover some portion of these costs, and the customer pays the remainder. The customer's share of these costs is often referred to as a contribution in aid of construction (CIAC).

Make-ready programs differ from the approach used for traditional projects by reducing the cost of EV-charging infrastructure for customers or developers.¹ Under make-ready programs, some of the infrastructure costs that the developer would pay are paid for by the utility. Typically, utilities are then able to recover the cost by adding the infrastructure to rate base or through another recovery mechanism. As such, make-ready programs help address some of the financial barriers associated with expanding EV-charging infrastructure and act to align the interests of developers, utilities, and customers.

However, there is no one-size-fits-all solution. Programs vary in the types of eligible projects (public vs. private), the equipment covered (in-front-of and/or behind-the-meter), whether utilities are able to earn a return on make-ready investments, and ownership models (utility vs. third party). Make-ready programs offer the opportunity to expand charging infrastructure to benefit all stakeholders. However, utilities must consider the opportunities unique to their service territories, what is possible in their regulatory environment, and how best to respond to customers' needs.

Consequently, make-ready program planning and implementation is not without challenges. Factors, such as varying developer costs, uncertain EV-adoption rates, and the ability of the grid to accommodate charging load, present challenges that utilities must prepare to overcome. Through our experience in developing these programs, we have identified several actions utilities can take to develop successful EV make-ready programs.

¹ Because charging station developers are typically involved in public-charging infrastructure build-out, we use the term "developer" for simplicity. However, charging infrastructure developers and owners can also take the form of utility customers, site hosts, charging station developers, etc.



Determine Strategic Scope and Objectives

As utilities design their make-ready programs, they must align program objectives with the greatest opportunities to increase adoption by addressing stakeholders' needs. Stakeholders' priorities may differ, which will require utilities to design make-ready programs to meet the needs and demands of site owners, developers, customers, fleet owners, and third-party contractors within their service territories.

In many cases, regulators may establish requirements to which utilities must align their program objectives. For example, state-led programs may set development targets for specific communities, market segments, or offer incentives to those installing EV-charging infrastructure. Utilities will need to orient their programs to aggressively pursue mandated targets and ensure full access to incentives. Establishing the strategic scope and objectives early enables managers to develop a program that is proactive and cost effective.



Organize and Communicate Early

Make-ready programs will require extensive coordination among a utility's internal organizations to implement, potentially more so than large traditional new customer processes. Specific EV make-ready roles and responsibilities should be established early across the groups that will have roles in carrying out the program. In addition, the needs of a make-ready program (e.g., customer service, accounting, legal, etc.) must be communicated to internal organizations with sufficient time to allow managers to alter processes or absorb additional workflow. Such coordination, and the corresponding change management, is time intensive and can be a challenge to implementing an effective make-ready program.

The emerging best practice is for utilities to establish a dedicated EV team to manage the implementation and coordination of EV programs, including make-ready. EV team responsibilities can vary in scope, but they should at minimum serve as the point of contact within the utility and externally for EV programs. Dedicated teams ensure a disciplined approach to an established strategy, coordinate between internal organizations, administer EV make-ready programs, and support compliance with regulatory requirements. EV teams can also drive implementation, develop processes, manage information, and facilitate change management across the utility.



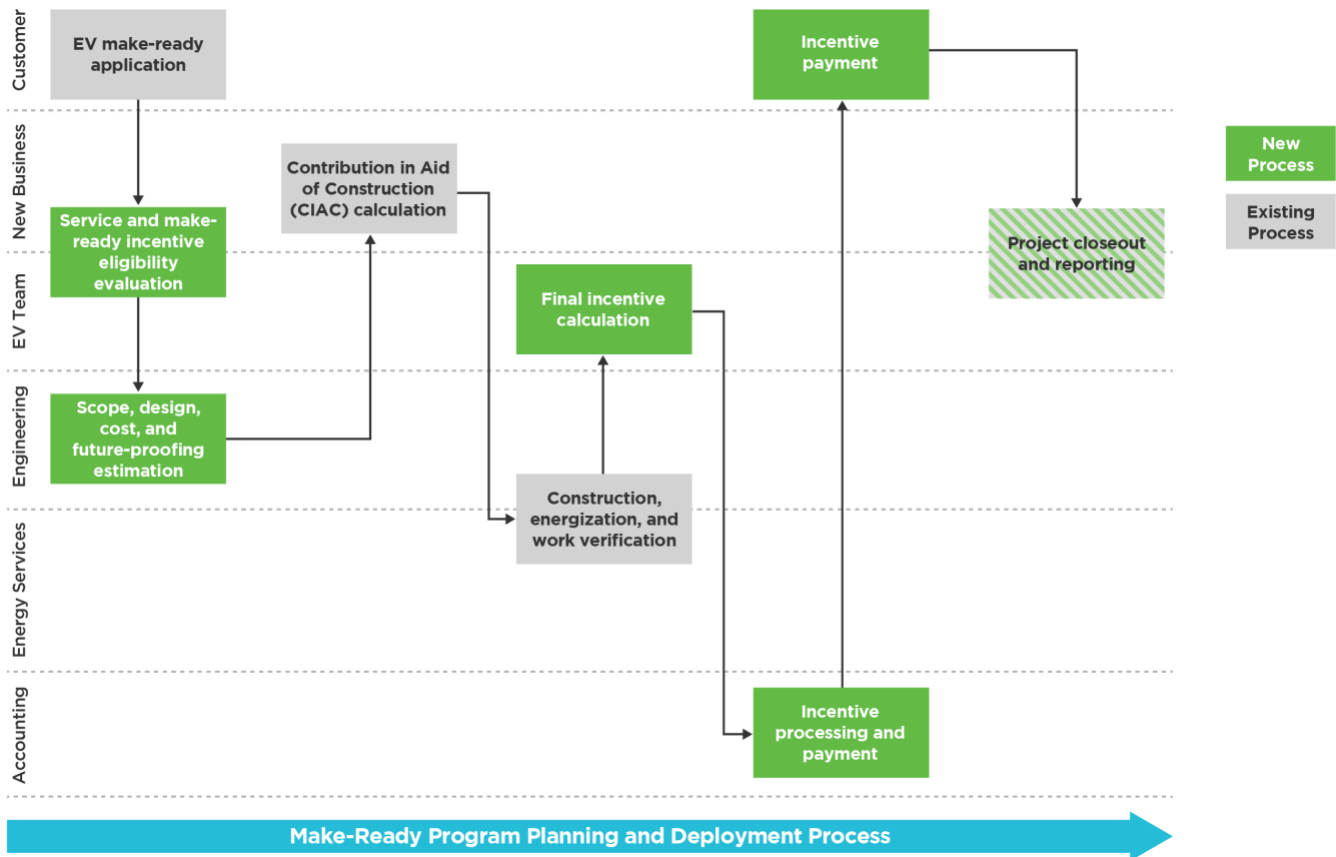
Process Design and Refinement

Administering EV make-ready programs may appear similar to establishing typical new business accounts, but there are unique planning considerations that go into make-ready projects. The number of charging stations and plugs, specific location at the site, circuit capacity, anticipated demand, variability in load, and supporting infrastructure all significantly impacts the cost and effort required to properly plan and complete the installation of EV-charging infrastructure. Existing processes may need to be augmented with additional procedures, such as an application specific to EV supply equipment, utility and developer-side cost calculations, service agreements, and considerations, such as incorporating distributed energy resources. Example process updates are shown in Figure 1.

EV-charging infrastructure and associated engineering demands require input from myriad organizations, including distribution engineering, rate design, new business, customer service, and finance and accounting. An iterative approach to process design, improvement, and implementation allows for effective change management with internal and external feedback loops. As utilities and stakeholders

become more familiar with EV-infrastructure projects, decisions regarding formal processes and policies become more informed. An iterative approach enables utilities to account for unforeseen trends and requirements that impact internal operations, software procurement, staffing, and outreach and education efforts.

Figure 1: Make-ready programs introduce new steps to the traditional process, requiring coordination across multiple stakeholders.





Customer Outreach and Education

Customer outreach efforts are necessary to identify potential program participants and help them navigate the available incentives. Obtaining knowledge of market segments, customer preferences, developer approaches, and planned projects within a service territory will enable utilities to better anticipate upcoming requirements, prioritize internal efforts, leverage external resources, and identify stakeholders (e.g., developers, commercial and industrial customers' points of contact, fleets, municipal agencies, etc.). This knowledge enables utilities to address all stakeholders' interests and right-size their make-ready programs. As utilities develop relationships with stakeholders, it may be necessary to consider focused outreach efforts in areas that can support increased load requirements without significant distribution infrastructure investment.

Utilities may need to develop educational materials to support decision making internally and externally. It will be necessary to train customer service representatives and field personnel in program specifics to meet customers' needs and drive program participation. Customer education should highlight the programs available to stakeholders, best practices, opportunities for sharing EV-infrastructure costs, and other benefits that mitigate switching costs, installation costs, and customer bill impact.

Conclusion

Make-ready programs provide utilities the opportunity to prepare for the rapid expansion of EVs, encourage EV adoption, and rate base new infrastructure. Programs that adopt a multi-stakeholder approach will benefit from a shared learning process, reduced burden of risk, and the experience to expand EV infrastructure in a cost-efficient manner to meet developer, owner, and operator needs.

Make-ready programs are emerging as the preferred method for utilities to support increased access to public EV charging. This trend is accelerating driven by emissions-reduction targets, state and federal policies, corporate environmental, social, and governance commitments, breakthroughs in technology, and shifts in the overall market (preferences of automakers and customers). Make-ready programs can benefit utilities by encouraging capital investment in infrastructure to prepare for future load requirements and adapting to a changing transportation landscape.

How ScottMadden Can Help

ScottMadden works with utilities to plan for the integration of EVs into their business and operations, including the development of EV-charging programs, EV organizations, distribution planning and new business processes, customer outreach programs, and incentives, including make-ready programs. Our support helping utilities plan for and launch EV make-ready programs includes reviewing key program criteria and design considerations to help encourage thoughtful planning and program design. To learn how to accelerate your company's ability to anticipate and adapt to changes in the market or to get started on your own make-ready program, [contact us](#) today.

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ScottMadden is the management consulting firm that does what it takes to get it done right. We consult in two main areas—Energy and Corporate & Shared Services. We deliver a broad array of consulting services ranging from strategic planning through implementation across many industries, business units, and functions. To learn more, visit www.scottmadden.com | [Twitter](#) | [Facebook](#) | [LinkedIn](#).

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