

Planning and Design Commission Report

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File ID: 2020-01302

November 12, 2020

Discussion Item 10

Title: New Building Electrification Ordinance Framework

File ID: 2020-01302

Location: Citywide

Recommendation: Review and comment on the proposed framework for an ordinance that would require: **1)** All new low-rise buildings of three stories or less to be constructed all-electric by 2023, and all new buildings of four-stories or more to be constructed all-electric by 2026* **2)** provide 20% Electric Vehicle (EV) capable charging spaces and at least one installed, operational Level 2 EV charger in new development and; **3)** Amendments to Title 17, the Planning and Development Code, to support EV charging with parking reductions and parking standard-incentives, effective in 2021.

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Attachments:

- 1-Description/Analysis
- 2-Outreach Efforts
- 3-Potential Schedule
- 4-SMUD Capacity Letter

* Provided that all-electric high-rise construction (four-stories or more) has been determined to be cost-effective, including the incremental costs of electrical infrastructure upgrades, and the technology has shown to be feasible.

Description/Analysis

Issue Detail: On December 10, 2019 City Council declared a climate emergency and the City's intent to take bold and immediate action to address climate change (Resolution No. 2019-0465). On June 29, 2020, the Mayors' Commission on Climate Change (MCCC) unanimously adopted its final report for achieving carbon zero by 2045, with building electrification identified as necessary action. August 25, 2020, City Council directed staff to 1) begin the process of adopting an ordinance requiring all new low-rise construction to be all-electric by 2023; 2) to change the local building code to ensure that new infrastructure is EV-capable (Motion No. 2020-0226); and 3) bring forward a draft framework and timeline of a building electrification ordinance to the Law and Legislation Committee within 45 days.

Staff presented a draft building electrification ordinance framework to the Law and Legislation Committee on September 29, 2020. Committee members directed staff to explore the feasibility of also including in the building electrification ordinance, the MCCC recommendation to require all new buildings to be fully electric by 2026*. Committee members also asked staff to explore the ability to move-up the implementation timeline for new building electrification and consider offering incentives for early implementation, while balancing the needs of the development community to adequately plan for the new mandate. Staff requests review and comment from the Planning and Design Commission on the proposed framework.

Policy Considerations: The 2035 General Plan includes the following key policies related to GHG emissions reduction.

- ER 6.1.5 Community Greenhouse Gas Reductions** 🌐. The City shall reduce community GHG emissions by 15 percent below 2005 baseline levels by 2020 and strive to reduce community emissions by 49% percent and 83% percent by 2035 and 2050, respectively. (RDR)
- ER 6.1.6 Municipal Greenhouse Gas Reductions** 🌐. The City shall maintain and implement its Phase 1 Climate Action Plan to reduce municipal GHG emissions by 22 percent below 2005 baseline level by 2020 and strive to reduce municipal emissions by 49 percent and 83 percent by 2035 and 2050, respectively. (SO)
- ER 6.1.7 Greenhouse Gas Reduction in New Development** 🌐. The City shall reduce greenhouse gas emissions from new development by discouraging auto-dependent sprawl and dependence on the private automobile; promoting water conservation and recycling; promoting development that is compact, mixed use,

pedestrian friendly, and transit oriented; promoting energy-efficient building design and site planning; improving the jobs/housing ratio in each community; and other methods of reducing emissions. (RDR)

Equity Considerations:** All-electric construction reduces the costs to build low-rise housing and may make low-rise housing more affordable. Cost-effectiveness studies for all-electric buildings demonstrate that the ratepayer utility costs for all-electric buildings are lower than those with gas appliances. Recent studies have found that natural gas stoves can cause indoor air quality to exceed outdoor air quality standards for NO₂ and CO. Facilitating the transition to EVs will also have significant air quality benefits by reducing smog from vehicles.

Economic Impacts: The economic impacts of passing an electrification ordinance would be reduced construction costs for residential development and increased demand for climate-friendly appliances. Cost-effectiveness studies indicate that all-electric construction is cost-effective for all low-rise construction, and analysis by City staff indicate that all-electric low-rise construction is cost-effective for all development type scenarios studied except medium office. Even medium office is cost-effective when SMUD incentives are considered. City staff and SMUD will continue to engage stakeholders to share information and findings related to cost-effectiveness.

Environmental Considerations: Review by the Planning and Design Commission is not itself a project under the California Environmental Quality Act (CEQA) because it is a request for input and recommendation as an administrative activity that will not result in any direct or indirect physical change in the environment. (CEQA guidelines section 15378(b)(5).) Environmental review pursuant to CEQA will be conducted prior to any adoption of the proposed ordinance.

Sustainability: It is anticipated that the proposed electrification ordinance will have a net positive environmental impact because it will reduce GHG emissions and other pollution associated with fossil fuel combustion from gas heating systems, stoves, water heaters, and other appliances. The electrification ordinance will also facilitate the transition to zero-emission vehicles (ZEVs), help improve air quality and further decarbonize Sacramento's economy. Electrifying buildings and the transportation sector are key strategies to achieve carbon neutrality and advance the recommendations from the Mayor's Commission on Climate Change.

Commission/Committee Action: On September 29, 2020 staff presented a draft building electrification ordinance framework to the Law and Legislation Committee.

***The City's working definition for equity is: "Regardless of one's identities, equity is when all people have fair, just treatment, access to the opportunities necessary to satisfy their essential needs, advance their well-being and achieve their full potential, while identifying and eliminating barriers that have prevented the full participation of some groups."*

Recommended Framework for Electrification Ordinance: 1) All new low-rise buildings of three stories or less to be constructed all-electric by 2023, and all new buildings of four-stories or more to be constructed all-electric by 2026*; 2) provide 20% Electric Vehicle (EV) capable charging spaces and at least one installed, operational Level 2 EV charger in new development and; 3) Amendments to Title 17, the Planning and Development Code, to support EV charging with parking reductions and parking standard-incentives, effective in 2021.

** Provided that all-electric high-rise construction (four-stories or more) has been determined to be cost-effective, including the incremental costs of electrical infrastructure upgrades, and the technology has shown to be feasible.*

The draft effective dates for electrification requirements are January 1, 2023 and January 1, 2026, respectively. These effective dates align with the anticipated effective date of the 2022 California Building Standards Code and the anticipated effective date of the 2025 California Building Standards Code. It is anticipated that complete building permit applications (including payment of all required fees) filed with and accepted by the City's Building Division prior to the effective date of January 1, 2023 or January 1, 2026 respectively, would not be subject to electrification requirements. The proposed effective dates are consistent with the Mayors' Commission on Climate Change recommendations and allow sufficient time for the development community to adequately plan for the new mandate.

During the transition period between the ordinance adoption date and effective date, the City's Planning and Building Divisions will conduct targeted outreach and educate potential development project applicants about the benefits of all-electric construction. The proposed framework includes a proposed amendment to the Planning and Development Code to go into effect with the adoption of the ordinance, that would incentivize EV charging stations prior to the effective date, by allowing the substitution of one EV charging station for 2 spaces or 10% of required on-site parking spaces (whichever is greater). Many projects within the SMUD service area have already voluntarily constructed all-electric buildings including 291 single-unit dwellings, 20 multi-unit dwellings and five commercial buildings. Many additional all-electric development projects are in the planning stages.

Rationale for Recommendation: Council has declared a climate emergency and declared the City's intent to take bold and immediate action to address climate change. Staff are recommending the framework shown above, which is consistent with MCCC recommendations and Council direction, for the following reasons outlined below:

Carbon Reductions

- The gap analysis of the draft measures and actions for the Climate Action and Adaptation Plan Update shows that there is still a gap of 323,108 MT CO₂e that needs to be closed in order to meet the City's target of achieving carbon-neutral by 2045. Clean, electric energy can replace the primary contributors to carbon pollution. Systemic changes to the built environment must be made to meet the City target. The earlier the effective date, the greater the City's ability to successfully close the gap.

Cost Savings

- All electric new construction provides significant cost benefits because it eliminates the need for gas infrastructure. The proposed action to pass an electrification ordinance for new low-rise construction is expected to reduce the cost of building low-rise residential housing and could result in more affordable single-family and multi-family low-rise housing.
- Retrofitting existing buildings can require significant upfront investment (even though they provide long-term cost savings). All-electric buildings will avoid construction of "stranded assets" (obsolete gas infrastructure and appliances) that will require significant retrofit cost in the future when gas infrastructure is removed to meet state and utility standards for carbon emission reduction.

Public Health Benefits

- Recent studies have found that natural gas stoves can cause indoor air quality to exceed outdoor air quality standards for NO₂ and CO. All electric buildings are safer and avoid the destructive costs of residential fires started by gas as well as deaths and life-changing injuries. The need to store and transport toxic flammable fossil fuels will be reduced. Facilitating the transition to EVs will also have significant air quality benefits by reducing smog from vehicles.

Compliance with Current and Future State Mandates

- Beginning with Assembly Bill 32 (2006), the state has passed a number of laws and Executive Orders requiring carbon emissions to be significantly reduced in the state. Carbon emissions reductions to 1990 levels can only be achieved if each jurisdiction and community does its part to make transformative change to reduce greenhouse gas emissions.

- California's utilities are required to have an all renewable energy portfolio by 2045. In order to achieve this ambitious goal, collaboration from the cities and county within SMUD's service territory is paramount to reduce GHG emissions and provide the Sacramento region with clean energy, improved air quality, and continued affordable rates that benefit the entire community.
- Integrating all-electric standards and EV capability into one comprehensive ordinance provides a balanced, overall package with net cost savings for new development. New projects will be future-proofed with adequate electrical capacity, avoiding the need for future costly retrofits.
- Requiring installation of at least one Level 2 charger increases visibility of EV charging options to both developers and the public, while leaving the option to developers to determine the feasibility of installing additional EV supply equipment. Regardless, by requiring adequate electrical capacity upfront, the ordinance will avoid future retrofit costs for installation of EV chargers. Installing EV capable spaces during construction adds approximately \$800 per space. Recent studies have indicated that retrofitting that same space can cost approximately \$2,370 - \$3,700, depending on the number of spaces. Incorporating the infrastructure with initial construction can then yield savings of \$1,570 - \$2,900 per space. For most building types, the savings from building all-electric offsets the small added cost of additional EV infrastructure, providing overall cost savings in comparison to mixed-fuel construction.

Financial Considerations: The proposed ordinance is not anticipated to have a significant cost impact for the City. The Building Division will implement the new ordinance with existing staff resources.

Local Business Enterprise (LBE): Not Applicable.

Background:

California has taken an aggressive stance to mitigate climate change at the state-level through the adoption of legislation and policies. The two major state GHG-related goals are established by Assembly Bill 32 and Senate Bill 32.

- AB 32 required state agencies to reduce statewide GHG emissions to 1990 levels by 2020.
- SB 32 requires a 40 percent reduction below 1990 levels by 2030.

Executive Order B-55-18 was signed by the Governor Brown in 2018. It sets a goal of achieving carbon neutrality as soon as possible, but no later than 2045, and maintaining neutrality thereafter. It also calls for 100 percent renewable energy by 2045.

In November 2018, Mayor Darrell Steinberg and West Sacramento Mayor Christopher Cabaldon launched the Mayors' Commission on Climate Change (MCCC) to develop recommendations for the cities of Sacramento and West Sacramento to achieve carbon zero by 2045. On June 29, 2020 the Mayors' Commission on Climate Change unanimously adopted its final report <<https://www.lgc.org/wordpress/wp-content/uploads/2020/06/Mayors-Commission-on-Climate-Change-Final-Report.pdf>> for achieving carbon zero by 2045 in Sacramento and West Sacramento. The MCCC recommendations included the following for electrification in new construction:

MCCC Built Environment Recommendation - Electrification in New Construction:

- Mandating all-electric construction to eliminate fossil-fuel use in new low-rise* buildings by 2023 and all buildings by 2026**. (*Low-rise defined as under 4 stories. **Provided that the costs to go all-electric are cost-effective including the incremental costs of electrical infrastructure upgrades and the technology has shown to be feasible.)

MCCC Mobility Recommendation - Zero-Emission Vehicles:

- Developing a comprehensive package of incentives, disincentives, and policies to encourage the adoption of zero-emission vehicles (ZEVs) so that:
 1. 70% of new vehicle registrations will be for ZEVs by 2030.
 2. All public, private, and shared fleets are fully electrified by 2045.

In coordination with the MCCC recommendations, the City is also in the process of updating the Sacramento Climate Action and Adaptation Plan (CAAP) to reduce community-wide greenhouse gas emissions to 40% below 1990 levels by 2030 and achieve carbon neutrality by 2045. It is anticipated that the draft CAAP will be available for public review in mid-2021.

Decarbonization through electrification is one of the City's key strategies for reducing greenhouse gas (GHG) emissions. Building code amendments are more effective and cost

efficient than other GHG reduction measures, so they are a logical first step. Sacramento is looking to be a regional and statewide leader in taking proactive steps to reduce the impact of climate change.

Following the passage of SB100, which mandates that California utilities provide carbon-neutral electricity by 2045, local governments began passing ordinances that are variations on the theme of prohibiting fossil fuel energy sources in new construction.

As of September 1, 2020, thirty-three local governments in California have passed local government “decarbonization ordinances”. Many of these are amendments to various parts of the California Building Standards Code for water and space heating systems, however some of them go as far as prohibiting natural gas infrastructure, and many of them have included additions such as solar and EV charging infrastructure requirements.

Cost-effectiveness studies indicate that all-electric construction is cost-effective for all low-rise construction, and analysis by City staff indicate that all-electric low-rise construction is cost-effective for all development type scenarios studied except medium office. Even medium office is cost-effective when SMUD incentives are considered. Avoiding the cost of gas infrastructure provides significant savings, and most electric appliances have similar or lower operating costs compared to natural gas appliances. Cost-effectiveness studies for high-rise development are anticipated in the near future.

Adding EV capacity requirements in new construction is also cost effective when compared to the cost of retrofitting to add EV capacity later. Installing EV capable spaces during construction adds approximately \$800 per space. Recent studies have indicated that retrofitting that same space can cost approximately \$2,370 - \$3,700, depending on the number of spaces. Incorporating the infrastructure with initial construction can then yield savings of \$1,570 - \$2,900 per space. For most building types, the savings from building all-electric offsets the small added cost of additional EV infrastructure, providing overall cost savings in comparison to mixed-fuel construction.

SMUD territory is one of the best locations in the country to go all-electric because SMUD offers excellent incentives, reliable electrical service, and maintains lower over-all energy rates than most utilities. SMUD’s Integrated Resource Plan (or 2040 Energy Plan) was adopted by the California Energy Commission in December 2019 and sets a target of achieving net zero greenhouse emissions by 2040. The plan relies on a combination of measures and calls for significant investment in electrification of cars and buildings; reduced energy consumption through energy efficiency and demand response; and developing additional zero-emission generation resources and energy storage. SMUD is already half-way to its goal of achieving carbon-neutrality by 2040. Currently, 50 percent of SMUD’s power mix is from carbon free

sources including solar, wind, geothermal, biomass and hydroelectric. By 2030, SMUD expects 80 percent of their power mix will be carbon free. For additional information, see Attachment 4-SMUD Grid Capacity Letter.

Outreach Efforts

OUTREACH EFFORTS TO DATE:

2040 General Plan Update/Climate Action Plan Outreach:

Staff have conducted an extensive community outreach program as part of the outreach for the 2040 General Plan and Climate Action Plan Update which included the concept of electrification. To date, outreach efforts have included:

- Two meetings with the General Plan Environmental Justice Working Group (EJWG) to review 22 GHG reducing actions
- Four city-wide workshops (April/May of 2019)
- Ten community plan meetings (Summer of 2019)
- Three listening sessions (2019)
- Virtual questionnaires with 920 respondents (May-June 2020)
- Plus: Pop-up events, youth engagement at Luther Burbank High School, youth events at Dyer Kelly elementary school, youth engagement through Summer at City Hall, youth engagement with youth ambassadors from La Familia, Asian Resources, and Greentech, Lift every Voice event (2019 and 2020)

The majority of the feedback from the community was supportive of efforts to reduce GHG emissions.

Mayor's Commission on Climate Change Community and Stakeholder Engagement:

The Mayors' Commission on Climate Change (MCCC) met first in November 2018 and held its ninth and final meeting on June 29, 2020 when the final MCCC recommendations were adopted. Throughout the duration of the Commission's efforts, input was gathered from the public, key stakeholders, and Technical Advisory Committee members in person and via online public comment. A series of Business Roundtables was also hosted by the Sacramento Mayor's Office, Climate Commissioners, and the Chambers of both cities.

The Built Environment Technical Advisory Committee solicited comments on the electrification strategies and tactics during each meeting as did the MCCC during its public meetings and online. The City of Sacramento Mayor's Office collaborated with Climate Commissioners Meg Arnold and the Sacramento Metro Chamber to host a series of roundtables and conversations with small and businesses, individuals, large employers, supply chains and over 100 stakeholders tied to business. Priority industries and stakeholder groups included real estate and development, multi-family property owners and managers, building contractors, restaurants, manufacturing operators, major employers, green businesses, shared mobility service providers, labor unions and

Outreach Efforts

workforce development organizations. The City of Sacramento Mayor's Office and Climate Commissioner and West Sacramento Councilman Chris Ledesma presented to and received feedback from the West Sacramento Chamber of Commerce as well. Feedback from the Sacramento Metro Chamber and the Building Industry Association resulted in an amendment to the strategy originally recommended by the Built Environment TAC and ultimately adopted by the MCCC. The comments received from Chamber leadership and developers with existing and potential projects in downtown Sacramento resulted in the split timing strategy for electrification of new construction with low-rise by 2023 and the high-rise buildings by 2026.

Outreach also included feedback from the Equity Technical Advisory Committee and organizations that represent entities that will be affected by the retrofit of future buildings.

SMUD's Outreach:

SMUD kicked off its building electrification efforts in June of 2018 with incentive programs for space and water heating, induction cooking, and programs for single family and multifamily developers. To date over 3,000 customers have taken advantage of these programs. As part of these programs SMUD has performed various outreach including:

- Over a dozen training events focused on architects, engineers, contractor and developers
- Induction training events held in over 6 libraries in the Sacramento area
- Maintained induction cooking unit in the library's lending program
- Held a heat pump water heater technology forum at SMUD with over 100 attendees.
- Handed out flyers and magnets at home shows
- Building contractors who work in SMUD programs promote electrification and its benefits.
- SMUD's website includes information about the benefits of going electric, information about residential electric vehicles, all-electric smart homes, and SMUD programs (including educational videos explaining the technology and the environmental benefits of the technology).

EV Strategy/Blueprint Outreach:

In December 2017, the City adopted its first EV Strategy following stakeholder and community engagement. The City conducted additional engagement in 2019 to solicit community feedback on EV adoption and development standards through the City's EV Blueprint planning effort:

Outreach Efforts

- Over 15 community events throughout Sacramento including pop-up events and workshops to stakeholder presentations,
- An online survey available on the City website and at events, with 307 responses.
- A presentation to the Planning and Design Commission, with support for Title 17 amendments and an initial proposal of requiring EV-ready installations with an installed outlet.
- Stakeholder meetings with business and development representatives, affordable housing providers, and EV mobility technology companies.

OUTREACH STRATEGY FOR ELECTRIFICATION ORDINANCE

Ongoing outreach and education meetings including with key stakeholders:

- Local builders, construction industry, and building trades
- Developers
- Restaurant industry
- Business Districts
- Gas & Propane providers
- Community-Based Organizations
- Advocacy Organizations

In addition, City staff will host virtual webinars on specific topics and sectors, such as affordable housing development projects, restaurants and breweries, residential appliances, and electric vehicle infrastructure. The webinar topics and times will be advertised in the coming weeks.

For more information, see the project webpage at:

https://www.cityofsacramento.org/Community-Development/Planning/Major-Projects/General-Plan/About-The-Project/Climate_Change/Electrification-Ordinance

SPECIFIC OUTREACH CONDUCTED TO DATE FOR ELECTRIFICATION ORDINANCE:

UA Local 447, Plumbers and Pipefitters (October 20, 2020)

- Attendees noted the following:
 - UA Local 447 generally embraces climate actions with some caveats. UA Local 447 canvassed their membership and provided the following information:

Outreach Efforts

- Gas constitutes 18-27% of plumber's and pipefitter's work, 22.5% on the average. According to UA Local 447, this is more than 300,000 person-hours per year. A concern is that this ordinance could potentially put 150 members (10%) out of work in a year.
- Suggestions: Identify additional opportunities for greywater and rainwater catchment systems to provide work for plumbers and pipefitter to offset losses.

Downtown Construction/Business Coalition (October 20, 2020)

- Attendees noted the following:
 - Options and availability are sometimes limited for certain uses. Breweries: Tanks run on gas
 - Concerns about feasibility and costs for developers.
 - Availability of equipment for some applications such as industrial uses and larger facilities.
 - Chefs to have the option of cooking over a flame, and induction does not wear well with cast iron.
- Concerns: Implications of adopting earlier than 2023:
 - Post-COVID market recovery not expected until the end of 2022.
 - Need lead time for developers to plan their project. Do not want to drive businesses outside of the City.
 - Sacramento has a skilled labor gap and shifting to all electric could exacerbate challenges.

Pacific Gas & Electric (October 23, 2020)

- PG&E conveyed support of the City's electrification efforts.

Sacramento Metropolitan Air Quality Management District (October 23, 2020)

- SMAQMD supports the efforts due to significant air quality benefits.

350 Sacramento (October 26, 2020)

- Recommended moving the effective date forward.
- Recommended expanding to include major retrofits next.

City of Sacramento Housing Policy Working Group (October 29, 2020)

- Housing Policy Working Group members noted the following:
 - Recommended meeting with affordable housing developers to understand their unique challenges.

Outreach Efforts

- Interest was expressed in working with SMUD to advance Virtual Net Metering; and
- The challenge of electric central water heating for high-rise development was noted.

Potential Schedule – Electrification Ordinance

Item/Task	Anticipated Dates
Law & Legislation: Review and comment on framework and effective dates	September 29, 2020
Outreach & education meetings	Ongoing
Planning & Design Commission: Review and comment on framework	November 12, 2020
Revisions to draft Ordinance based on input	November/December 2020
Planning & Design Commission: Recommendation to Council for approval of Ordinance	January 2021
Law & Legislation: Recommendation to Council for approval of Ordinance	February 2021
City Council: Public Hearing on Ordinance	March 2021

Introduction

SMUD has been asked to provide additional information on our ability to meet future electrical grid demand associated with an increase in building and transportation electrification.

As explained in more detail below, SMUD has resource and capital investment plans in place to ensure that SMUD can reliably provide the grid capacity needed for electrification of buildings and transportation in Central City and throughout SMUD's service territory. SMUD plans and operates its grid to ensure safe, reliable, and cost-effective service today and into the future.

SMUD's Resource Planning

SMUD has been extensively planning for an increase in electrification for years, most recently through our Integrated Resource Plan ("2040 Energy Plan"), which was adopted by the SMUD Board in 2018 and serves as a roadmap for how SMUD will reduce greenhouse gas emissions in the Sacramento region. It sets ambitious goals to reach net zero carbon emissions by 2040, reducing SMUD's direct emissions from our operations to 1 million metric tonnes (MMT) of greenhouse gas emissions (GHG) by 2040. The Plan relies on a combination of measures and calls for significant investment in electrification of transportation and buildings, reduced energy consumption through energy efficiency and demand response, and development of additional zero-emission generation resources and energy storage. The 2040 Energy Plan will prioritize local investments to drive inclusive economic development, create jobs, spawn innovation, and improve environmental conditions for all the communities and neighborhoods SMUD serves. Electrification is a key component of the 2040 Energy Plan and will not only reduce SMUD's carbon footprint but will also contribute to reducing the greenhouse gas emissions in Sacramento County, which includes the City of Sacramento, by 64 percent. SMUD plans to expand and develop new programs to both remove barriers to local electric vehicle (EV) adoption including expanding charging infrastructure, and also electrify new and existing buildings.

Additionally, SMUD's Board recently adopted a Climate Emergency Declaration, recognizing the immediate threat that climate change has on our community and commits the Board to work toward carbon neutrality by 2030.

SMUD's Reliability Planning and Capital Investments

Maintaining reliable electrical service is a core value of SMUD. SMUD ensures its long-term ability to serve electricity demand by following federal and state requirements for safety and reliability. We update our transmission and distribution system plans annually; these plans provide a roadmap of expected investments over a 10-year and 5-year horizon to ensure our electrical grid continues to have the capacity to serve existing and future electricity demands in a safe, reliable, and cost-effective manner.

Capital investments are planned within the City of Sacramento and other parts of SMUD's service territory. Over the next six years, SMUD has laid out a capital investment plan of approximately \$180 million for the Central City. The plan includes completion of modifications to existing substations as well as key activities to install two new substations, Station H and Station J. The execution of this plan will add approximately 100 megavolt amps (MVA) of capacity on the 21 kilovolt (kV) system serving the Central City area. A typical high-rise building in Sacramento ranges between 400,000 and 800,000 square feet, and 100 MVA is enough capacity to serve almost 17 million square feet of new office space or over 22,000 new downtown all-electric housing units.

Central City Development

Infill development can be challenging for a variety of reasons; thus, the condition of overhead and underground wet and dry utilities should be considered as early as possible during a project's due diligence phase. SMUD infrastructure and electrical equipment can require special consideration in order to ensure safety and reliability. We strongly encourage developers and customers to engage with SMUD early in the design stages, when they have a sense of their electric load requirements and electric panel size, so that we can proactively work with them to identify needs, costs and energy efficient solutions.

Many developers who have contacted SMUD in the initial stages of projects and worked closely with our staff have been able to take advantage of integrating creative design solutions into their plans that reduced costs.

Conclusion

SMUD remains committed to working closely with the business and residential community, offering both incentives and resources, to facilitate the wider adoption of building and transportation electrification within the greater Sacramento region.

Our transmission and distribution plans will be continually updated well before any impacts are expected on the system, thus ensuring our system has the capacity to safely and reliably serve electricity demand from electrification of buildings and transportation.