Request for Expressions of Interest



A Partnership for the Benefit of San Diegans

City of San Diego Gas and Electric Franchise Renewal

Response to: Request for Expressions of Interest

February 19, 2020



We improve lives and communities by building the cleanest, safest and most reliable energy infrastructure company in America.



Scott Drury President



8330 Century Park Court San Diego, CA 92123

> Tel: 858-650-6110 Fax: 619-819-4173 SDrury@sdge.com

Dear Mr. Friedman,

On behalf of my colleagues at San Diego Gas & Electric (SDG&E), we appreciate the opportunity to submit our expression of interest to the City of San Diego for electric and gas services. We are honored to have served the City of San Diego since 1881 when it was a small town of just 3,000 people and we look forward to exceeding expectations as your electric and gas service provider for decades to come. While the following pages will go into greater detail, I thought it important to highlight the value our 4,000 hardworking employees bring to the City and to share several accomplishments of which we are extremely proud.

SDG&E is an industry leader in reliability having been recognized for 14 consecutive years as the most reliable utility in the west and presented with two additional national reliability awards in recent years. Our efforts to enhance grid resiliency and to reduce climate-related and weather-related vulnerabilities, like wildfires, were recognized nationally with the electric power industry's most prestigious honor, the 2018 Edison Award from the Edison Electric Institute. Our community roots run deep as well, including a strong partnership with IBEW that supports workforce development and diversity, an active nonprofit giving program and an employee team that volunteers thousands of hours each year to causes they care about. Finally, our company's supplier diversity efforts resulted in more than \$722 million in goods and services purchased from diverse suppliers in 2018, far exceeding our state's goal for the sixth consecutive year. These are just a few examples, but they clearly demonstrate our unwavering commitment to continuous improvement and growth.

The Franchise Agreement, like nearly all throughout the nation, is focused on how our organizations work together in the field to facilitate utility delivery - but it's about more than just keeping the lights on and the water hot. The energy space in California and San Diego is evolving quickly and our track record shows that we have not only met expectations head on, but that we are leading the way. Together, we have the opportunity to facilitate the launch of the City of San Diego-led Community Choice Aggregation program, save the City time and resources, and to ensure reliable gas and electric service well into the future.

Our mission to build the cleanest, safest and most reliable energy infrastructure company in America is what drives us every day. Perhaps equally as important, is the dedication our employees have to improve the quality of life in the communities where we live and serve. By focusing on our values to do the right thing, champion people and shape the future, I truly believe SDG&E is the best partner to help the City advance its energy goals going forward.

We look forward to the opportunity to discuss the future of world-class energy delivery in America's finest City and renewing our agreement for the benefit of San Diegans.

Sincerely,

Scott D. Drury President San Diego Gas & Electric Company



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I. Connecting San Diegans to the Cleanest Grid in America

CLEAN ENERGY INNOVATION AND RELIABILITY FOR SAN DIEGANS

SDG&E is a leader in clean energy, advancing electric vehicles (EVs), and developing and operating a low-carbon energy system. The company is modernizing the electric grid to enable new clean technologies to be built in San Diego.

Today, SDG&E delivers 45 percent clean energy, far exceeding the state's current mandate and the company is well on its way to meeting future goals. This commitment has benefitted San Diegans and will help the City achieve their ambitious Climate Action Plan goals. Additionally, SDG&E's industry-leading renewable portfolio includes no coal contracts. As energy choices expand, delivering high amounts of renewable power with high levels of reliability is the formula for San Diego's clean energy vision.

Energy storage is at the forefront of new grid technologies and SDG&E is ahead of the curve. In 2017, SDG&E built what was then the world's largest lithium-ion battery project in Escondido, California. The project can power up to 20,000 homes for up to four hours. SDG&E takes great pride in using local labor to build local projects that support the needs of San Diegans. There are nearly 60 steel-in-the-ground, labor-built projects that provide the backbone of clean energy delivery in San Diego. These projects support current and future energy technologies that the City of San Diego can leverage for its clean energy goals.

Energy storage technologies can be utilized as part of microgrids to enhance community resiliency and energy reliability. Nearly a decade ago, SDG&E built one of America's first community microgrids in Borrego Springs. The microgrid is capable of disconnecting from the larger grid and powering the entire Borrego Springs community. The project is a model for other types of community microgrids that could be built in the region.

SDG&E is modernizing the power grid with battery storage and other clean technologies to benefit customers and the climate.



SDG&E currently owns or contracts with more than 80 megawatts of clean battery storage power in San Diego County. Additionally, SDG&E has approval for an additional 70 megawatts, including a 30 megawatt project in Miramar to support the thriving business and residential area between the I-805 and I-15 freeways. The project is expected to begin operation by the end of 2020.



SDG&E is committed to making the San Diego region a leader in clean transportation through a multitude of programs to accelerate the installation of electric vehicle charging stations at multi-family housing, workplaces and other destinations.

DRIVING THE SAN DIEGO REGION TOWARDS A CLEAN TRANSPORTATION FUTURE

SDG&E remains committed to clean the air and help build a more sustainable and healthier future for San Diego communities by accelerating clean transportation in the region. The movement of people and goods - powered largely by gasoline and diesel-fueled vehicles - currently accounts for more than 50 percent of greenhouse gas emissions (GHGs) in San Diego. To reduce transportation related GHGs, California has set a goal to have 5 million EVs on the road by 2030. SDG&E's proportion of that target is 500,000. The rapid expansion of EV charging infrastructure is needed to achieve ambitious local and statewide climate goals.

Tailpipe emissions are a major contributor to air pollution. The American Lung Association gave this region an "F" for the number of High Ozone Days recorded, ranking the San Diego-Carlsbad metropolitan area No. 6 in the nation for having the worst ozone pollution.

Recognizing that there is a lack of access to EV charging - particularly in communities of concern - SDG&E worked with San Diego community leaders and businesses to launch the Power Your Drive Program, which bolsters access to EV charging at businesses, multi-family communities, and historically overlooked neighborhoods and communities of concern. About 30 percent of the Power Your Drive chargers are located in areas that suffer from high levels of air pollution and tailpipe emissions due to their proximity to freeways or industrial facilities. SDG&E tripled its original goal of 10 percent installation in those areas. In total, about 3,000 chargers are now in operation across 255 locations.

SDG&E is also piloting the installation of charging equipment for electric delivery trucks and shuttles; ground support equipment at the San Diego International Airport; trucks, forklifts, and other equipment at the Port of San Diego; and at Caltrans Park and Ride sites across the region.

Recently, the California Public Utilities Commission authorized SDG&E to build charging infrastructure for at least 3,000 plug-in medium-duty and heavy-duty (MD/ HD) electric vehicles and equipment, including transit buses, school buses, delivery trucks, and forklifts. This initiative also supports the electrification of refrigerated semi-truck trailers, which are vital for transporting perishable goods. As part of this program, SDG&E will launch an innovative vehicle-to-grid pilot project to support local schools and the electric grid. Ten electric school buses will use their on-board batteries to discharge excess energy to the grid (operating like a mobile battery) during peak demand hours.

Building on that momentum, SDG&E also received approval to install EV charging at schools, highereducation institutions, state and city parks, and beaches. Plans include the installation of 340 EV chargers at approximately 50 sites, including more than 20 state beaches and state, city and county parks, and 30 schools, other educational institutions, including K-12 campuses, vocational schools, community colleges, and universities. SDG&E will prioritize the installation of chargers in communities that are disproportionally impacted by air pollution. SDG&E will engage with stakeholders and local leaders to determine installation locations and sites. These projects help propel San Diego's clean technology industry and support cleaner air for current and future generations.

Supporting Clean Energy and Customer Choice

SDG&E has long supported customer choice and has been vocal about the company's willingness to cooperate with any formed aggregation organization. To date, SDG&E government affairs, energy planning, regulatory, customer service and electric procurement teams have held several meetings with staff from the cities affiliated with San Diego Community Power. SDG&E has also invited City of San Diego staffers to meet with SDG&E's energy procurement teams to discuss SDG&E's approach to buying some of the cleanest power in the nation.

SDG&E has been serving load from Direct Access customers for decades, and from the City of Solana Beach's CCA since 2018. SDG&E looks forward to cooperatively working with City of San Diego staff to support local and regional climate goals.



II. National Safety Leadership

At SDG&E, safety is a primary focus and part of the company's DNA. Nothing is more important than keeping the public, employees, contractors, and first responders safe. The company is making long-term strategic investments in technology, system upgrades and community partnerships to enhance community safety.

ENSURING PUBLIC SAFETY

Running a gas and electric system is complex and requires great skill to do it safely and effectively. SDG&E's number one goal is to ensure employees return home the way they came to work, all while delivering energy and protecting public safety.

SDG&E is proud to be the region's largest union employer. As part of its commitment to strive for excellence in safety for employees, contractors and public, the company revised work practices with IBEW Local 465 and enhanced the company's contractor safety program. The company has also implemented the Code of Excellence initiative within the SDG&E field workforce to promote greater union and management collaboration, teamwork, safety focus and operational excellence.

SDG&E's Executive Safety Council, comprised of top leadership, meets quarterly for an open dialogue with front-line employees and supervisors on safety issues, performance and culture. SDG&E's SAFE San Diego Giving Initiative supports programs and projects that encourage safety and emergency preparedness at home, at local businesses, and in local neighborhoods.

NATIONAL MODEL FOR WILDFIRE SAFETY

As part of the company's commitment to keeping the communities it serves safe, SDG&E has developed one of the most comprehensive and robust fire risk mitigation programs in the industry designed to improve grid resiliency. This includes working closely with first-responders and making significant strategic investments to fire-harden the power grid, increase situational awareness, update operating protocols and enhance the region's ability to respond to wildfires.

The cornerstone of this fire risk mitigation program is SDG&E's Fire Prevention & Wildfire Mitigation Plan, providing an overview of the organizational and operational activities the company undertakes to address the risk of fire in its service territory. SDG&E has an enterprise-wide focus on identifying mitigating solutions to the challenges of a dramatically changing climate to ensure the region remains resilient. These new climate conditions have created a challenging environment in which SDG&E has to prevent wildfires in all areas of the region, not just the rural backcountry. SDG&E's fire mitigation programs help reduce the strain on local and regional resources to prepare for and fight fires.

Customer outreach and education are also critically important to the success of SDG&E's wildfire mitigation plan. SDG&E has developed a comprehensive notification system that allows both customers and non-customers to receive timely information regarding wildfire prevention measures in eight different languages. In 2019, the company engaged communities throughout the service territory to ensure fire safety preparedness and awareness.



SDG&E's weather center is an important part of the company's wildfire preparedness and daily grid operations.

Wildfires pose serious threats to people and property, but also the climate. From a climate perspective, preventing and reducing the severity of wildfires is critically important. The 2018 wildfires in California produced more than nine times greater emissions than were reduced across the state's entire economy between 2016 and 2017 - with wildfires contributing more than the commercial, residential or agricultural sectors did in 2017.

INNOVATING UTILITY METEOROLOGY AND FIRE SCIENCE CAPABILITIES

In order to better anticipate, prepare for, respond to, and recover from severe weather and wildfire events, SDG&E developed and built what is arguably the nation's largest utility-owned weather network. SDG&E's team of full-time meteorologists also developed outage prediction modeling which has been integral to the safe and reliable operation of the electric system.

At nearly 200 stations, SDG&E's weather network provides unprecedented situational awareness of potential weather threats on the electric system and the region. Each station is attached to distribution and transmission poles and provides temperature, humidity and wind speed readings every 10 minutes. With more than 200,000 pieces of weather data collected daily, this weather system informs day-to-day operational decision-making at all levels of the company, including Electric Distribution and Transmission Operations, to mitigate the risks associated with adverse weather conditions and wildfires.

SDG&E shares its weather data with local fire agencies, the City's five fire chiefs and other first responders every day. This information is critical for resource planning and overall regional preparedness.

MAPPING THE HIGH-RISK FIRE AREAS TO SUPPORT COMMUNITY SAFETY

To focus its fire-hardening efforts, SDG&E became the first California utility to map its entire electric system based on the highest risk areas most prone to wildfire, creating what is known as the Fire Threat Zone (FTZ) and the High-Risk Fire Area (HRFA). These maps, approved by California regulators (CPUC), allowed SDG&E to propose statewide rules that led to improvements that protect public safety.

ENHANCING PREPAREDNESS THROUGH TECHNOLOGY

Another example of SDG&E's collaborative efforts is their partnership with UC San Diego and the Seismology Lab at the University of Nevada, Reno. As a result of the partnership, new Alert SDG&E Cameras have been installed in strategic areas throughout the region. In total, a set of 20 high-definition cameras improve fire detection and public safety by creating a live-stream view of San Diego's most fire-prone areas.

Adding this sophisticated set of cameras to the 100 cameras SDG&E already has access to provides a level of real-time situational awareness that was previously unavailable.



INVESTING IN FIRE PREVENTION RESOURCES FOR SAN DIEGO

While SDG&E can make investments to mitigate risk, threats still persist. Knowing full well that environmental conditions are prone to causing wildfires, SDG&E has partnered with wildland fire-suppression crews to provide access to equipment and trained firefighting personnel. These resources are dispatched with SDG&E crews when critical work needs to be conducted during high fire threat days. SDG&E also has an industrial fire brigade (IFB) contracted to address fires affecting local electrical equipment. The IFB is equipped with four portable fire-suppression trailers for these types of fires.

Due to the year-round threat of wildfires, SDG&E contracts with the world's largest waterdropping Aircrane Helitanker, capable of dropping 2,650 gallons of water or fire suppressant per flight. Since 2010, more than 1.1 million gallons of water have been dropped to protect local communities. In the City of San Diego, more than 110,000 gallons have been dropped. SDG&E's assets help reduce the strain on local resources to help fight fires.



SDG&E's aerial firefighting resources have become instrumental in supporting regional fire suppression and response.

LEADING THE CLIMATE DISCUSSION AT THE NATIONAL LEVEL

The increasing occurrence of significant weather events across the globe has become more evident in recent years, which has led to national discussions about climate resiliency. Because of SDG&E's weather modeling information, the company was tapped to join the U.S. Department of Energy's (DOE) Partnership for Energy Sector Climate Resilience initiative. As a leading participant in the partnership, SDG&E has collaborated with the DOE and 16 other utilities to improve the resilience of the nation's energy infrastructure against extreme weather and climate change impacts. The goal of the partnership is to identify the challenges national energy partners are facing today and work together to develop sustainable solutions. The value of this collaboration extends back into the San Diego region. SDG&E looks forward to bringing new best practices and innovations to continue the region's climate resiliency leadership.

III. Industry Leading Reliability

Every day, more than One million City of San Diego residents and businesses depend on SDG&E to power their homes and businesses. The company continues to invest in upgrading the grid and refining day-to-day operations to reduce the number and duration of power outages. SDG&E's grid is equipped with high-tech sensors, automated controls, and switches that allow grid operators and field crews to quickly detect and isolate problems and restore power.

Highly trained engineers, utility crews and power grid operators are continually working to lower the number and duration of power outages customers experience. With advanced and innovative improvements to the grid, customers on average experience about one power outage every other year lasting approximately 60 minutes.

The company has a proven track record for superior performance. In 2018, SDG&E was honored with the ReliabilityOne™ 'National Reliability Award' for superior performance among utilities in America by PA Consulting. In addition to this achievement, SDG&E received the 'Regional Reliability Award' for the Western Region for the 14th consecutive year and the 'Outstanding Technology and Innovation' award for the second year in a row for utilizing innovative technology to improve electric service.

To be named the most reliable utility in the Western United States means electricity is available when customers need it, every day, with fewer interruptions than elsewhere in the Western United States. The company's efforts don't stop there.

SDG&E wants to continue to work with the City to improve, modernize and upgrade the electric grid to ensure that the communities it serves have clean, safe and reliable energy for generations to come. Maintaining award-winning reliability is the foundation of our day-to-day operations.



SDG&E is proud to deliver 45 percent (Four times the national average) clean energy to Local homes and businesses.

SDG&E has received prestigious reliability awards for 14 years in a row.

Some of SDG&E's innovative technology and reliability enhancements that contributed to our national recognition include:

- **Modernizing infrastructure**: SDG&E is actively upgrading aging electrical equipment to ensure better performance, safety and reliability for customers (including fire-hardening efforts).
- **Advancing clean energy**: SDG&E is upgrading the power grid that serves the region to fully support the migration to 100% carbon-free energy in the years to come. To help facilitate a cleaner and healthier environment, SDG&E today is delivering around 45 percent of its energy from renewable sources.
- **Investing in innovative energy solutions**: As part of SDG&E's ongoing commitment to delivering a balanced mix of clean and reliable energy, the company has been a leader in its development of energy storage and microgrid programs. These new technologies allow power grid operators to gather intelligence, engineer, design, and ultimately build system upgrades that leverage innovative equipment and improve reliability for customers.

MODERNIZING AND ENHANCING GAS SAFETY AND RELIABILITY

SDG&E has approximately 230 miles of transmission pipelines and more than 8,000 miles of distribution pipelines that serve more than 892,000 natural gas customers in San Diego County. SDG&E's gas system is designed, constructed, operated and maintained in accordance with state and federal pipeline safety regulations. SDG&E has a comprehensive and proactive gas pipeline safety program to ensure the integrity of the system and the protection of customers and employees.

SDG&E has numerous state-of-the-art programs to identify and resolve potential problems before a safety-related incident occurs. These programs include extensive operating and maintenance plans, public awareness plans, employee training programs, as well as a pipeline integrity program, which includes regular inspections. SDG&E meets or exceeds all state and federal pipeline safety regulations for operations and maintenance, and has a robust training program that includes ongoing technical training and testing for employees as well as community and first responder training.

SDG&E has a dedicated workforce that proactively performs bi-monthly, quarterly and annual leak surveys on various segments of transmission and distribution pipelines. The company takes preventative and precautionary action to reduce gas service interruptions for customers and improve safety. The goal is to identify and resolve potential problems before they happen. If an issue does happen, SDG&E employs a 24-hour/7 days per week gas emergency response team to quickly respond to gas issues should they arise.



The safety and integrity of the gas system is a top priority for SDG&E.

SDG&E'S PIPELINE SAFETY ENHANCEMENT PLAN

Continued focus by California on safety has allowed SDG&E to implement a Pipeline Safety Enhancement Plan (PSEP), which identifies various pipeline sections throughout the system that have not been strength-tested, or for which there is no record of a strength test, and slates these pipeline sections to be strength-tested or replaced. PSEP also proposes to upgrade, replace, or retrofit about 21 mainline valves in the system with technology that allows them to be opened or closed remotely by system operators from a central control location, or that automatically shuts off the flow of natural gas in the event of a large pressure drop. Since 2012, SDG&E has replaced or strength-tested more than 23 miles of natural gas pipe in San Diego County through PSEP.

The next wave of PSEP work will focus on Pipeline 1600, a 50-mile transmission pipeline in San Diego County.

IV. Local and Proven Skilled Workforce Leads the Way

SDG&E's hardworking and highly trained workforce is the backbone of grid operations and maintenance. More than 50 percent of SDG&E's employees work in the field every day, making sure energy is safely and reliably delivered to customers.

SDG&E's long-standing partnership with the IBEW and aligned unions from the San Diego & Imperial Counties Labor Council (AFL-CIO) highlights the company's commitment to working families. SDG&E is proud to be one of the region's largest skilled workforce employers. The company's position is that the hardworking employees working on a gas and electric system need to be highly trained, certified and skilled.

Recently, SDG&E also announced a joint plan with IBEW Local 465 to hire nearly 150 entry-level positions, while rolling out new training and investments for six linemen apprenticeship classes, six line assistant classes, three electrician assistant classes and specialized training for welding and other high-skilled trades. In total, the new plan results in the hiring or significant upskilling of 400-500 represented positions.



SDG&E and local skilled workers provide the expertise to maintain one of the cleanest, safest and most reliable power grids in America.

V. Investing in San Diego Communities and Businesses



SDG&E was recently honored by the Edison Electric Institute with a Business Diversity Award in the innovation category.

SDG&E employees and the company's supply chain represent the communities and neighborhoods throughout the City of San Diego. Supplier diversity is a core business value and enhances the company's ability to remain competitive while contributing to a healthier and more vibrant local economy.

SDG&E's comprehensive supplier diversity program advocates for procurement opportunities for woman; minority; service-disabled veteran; lesbian, gay, bisexual and transgender-owned business enterprises (WMDVLGBTBE). SDG&E's term for WMDVLGBTBE is "diverse business" or "diverse business enterprise" (DBE).

In accordance with General Order 156, the company submits an Annual Report and Plan to the California Public Utilities Commission (CPUC) on March 1st of each year.

In 2018, SDG&E achieved the highest level of spending with diverse businesses in the company's history, purchasing 43.9 percent totaling more than \$722 million of goods and services from DBEs. This is the sixth consecutive year that SDG&E's supplier diversity spending has been above 40 percent, far exceeding the California Public Utilities Commission's (CPUC) goal of 21.5 percent. SDG&E takes great pride in this accomplishment which showcases the company's commitment to investing in local communities.

With the rapid evolution occurring in the energy sector, there are tremendous opportunities ahead - opportunities for innovation, job growth and new investments that have never existed before. San Diego's diverse businesses will lead the way in shaping the energy future.

In addition to supporting the local community, SDG&E takes pride is supporting community initiatives and seeks creative ways to enhance community character using its infrastructure. In 2019, the company supported a peace and safety movement in the heart of San Diego's historic Valencia Park neighborhood. SDG&E offered 30 utility boxes in the District 4 area of San Diego as canvases for talented community artists to create works of art that promote cultural pride, peace and safety. The company looks forward to other opportunities to connect with the community and support the many good things happening in San Diego.

VI. Accelerated Undergrounding to Enhance San Diego Neighborhoods

The City of San Diego and SDG&E have worked tirelessly and closely to accelerate undergrounding in San Diego neighborhoods. The current Franchise Agreement provides significant resources to propel one of the fastest and most aggressive undergrounding programs in the Country. Through teamwork and collaboration, SDG&E believes joint efficiencies can further accelerate and deliver projects more expeditiously.

2019 was an exciting year for undergrounding with unprecedented success. Working together, SDG&E and the City were able to complete nearly 23 miles of undergrounding, which is more than five times the average amount in previous years.

- » The City of San Diego's system is 74% underground and 26% overhead.
- » SDG&E constructs undergrounding projects per the Franchise Agreement terms and CPUC Rule 20.
- » In fiscal year 2019, SDG&E completed about 23 miles and currently has about 40 miles in construction and 90 miles in design.



VII. Bringing More Value to San Diego

Beyond the company's experience, capabilities and qualifications, SDG&E's core values are built into the essential electric and gas services provided to San Diegans every day.



NEXT STEPS

SDG&E looks forward to the opportunity to provide more technical detail on how the company will meet and exceed the City's expectations as San Diego's electric and gas service provider.

Contacts

Warren Ruis

Director, Regional Public Affairs San Diego Gas & Electric Company WRuis@sdge.com (619) 696-2562

Vanessa Mapula Garcia

Senior Public Affairs Manager San Diego Gas & Electric Company VMapulaGarcia@sdge.com (619) 676-8517