



SPEER STRATEGIC PLAN 2014-2017

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Background and History

SPEER was incorporated in October of 2011 after a six month planning process including a steering committee of industry members. The steering committee agreed on the composition of the board, member dues structure, organization name, initial activities, and the mission and purpose of the organization. Articles of incorporation were filed in October of 2011 with the following mission and purpose statements:

SPEER's mission is to accelerate the adoption of advanced building systems and energy efficient products and services in the South-central US.

The purpose is: to create a forum to advance the understanding and adoption of energy efficiency as a low-cost energy resource; and to design, implement, coordinate, and support regional projects to promote high energy performance and clean distributed energy in the built environment.

Since that time, SPEER has initiated many projects to advance its mission of accelerating adoption of advanced building systems and energy efficient products, services, and technologies. Funding has come from member dues, foundation grants from the Walmart, Mitchell, and Energy Foundations, a government grant from the State Energy Conservation Office and revenue from training programs and an annual Summit.

Membership doubled in the first year and has nearly doubled again in 2013. There are currently 38 dues-paying members who represent a broad range of sectors involved with energy efficiency including manufacturers, engineers, contractors, ESCO's, non-profits, cities, universities, utilities, software companies, and energy management companies.

In December 2011, the Board of Directors approved a contract with Good Company Associates to provide all staff services, including accounting and administration, executive director duties, and project management. The organization had little operating capital at the onset and this structure allowed the organization to launch with little overhead expense. Good Company continues to provide all staff services to the organization.

SPEER's activities and initiatives have already had a significant impact in the region, but more importantly, SPEER's growth, strong membership, and upcoming initiatives give the organization the potential to have a major and sustained impact going forward. This impact can be maximized by additional involvement from companies, organizations, foundations, and governmental entities that could provide support in myriad ways to help us achieve common goals.

Accomplishments

We begin by highlighting the accomplishments of the organization. Our most significant accomplishment by far is recruiting the stellar group of members which now comprise the organization. The mix of utilities, manufacturers, engineers, ESCOs, contractors, non-profits, cities, and others exemplifies the breadth of the organization, and speaks to its tremendous potential going forward. The members are enthusiastic, engaged, and actively helping to grow the organization and advance our collective mission.

SPEER's accomplishments include the following:

- Recognized as the Regional Energy Efficiency Organization (REEO) for Texas and Oklahoma by the US Department of Energy and national foundations.
- Obtained 501(c)(3) status from IRS.
- Signed MOU with the other five REEOs to coordinate on areas of common interest.
- Completed 40 half-day building science workshops reaching over 800 participants.
- Helped to establish and now manage the Texas Energy Code Compliance Collaborative in partnership with the State Energy Conservation Office and Building Code Assistance Project.
- Developed the first baseline assessment of energy code compliance in Texas.
- Trained the first group of building officials in the Energy Code Ambassador Program, to provide a network for information and resource sharing.
- Held energy efficiency interactive training programs for high school and college students in three different cities.
- Delivered the first series of the Building Operator Certification in Texas and in Oklahoma. Recruited a local instructor pool to support the growth of the program.
- Produced a white paper explaining how energy efficiency and other demand side resources could potentially participate and be valued in Texas' electric market. Presented this concept to market stakeholders at ERCOT.
- Established the platform for an Energy Upgrade campaign which can provide consumer information about how to make their homes or businesses more energy efficient.
- Initiated a project with legislative offices and the State Energy Conservation Office to promote performance contracting to enable building upgrades for state agencies.
- Convened our First Annual Summit attracting 200 people to Austin to participate in two days of working groups, identifying issues, resources, and collaborative efforts.
- Held first all-day Member Retreat with representation from over 60% of SPEER member companies.
- Raised funds to support our efforts from four foundations and governmental entities, from numerous training events, and our Annual Summit.
- Membership has grown from 10 founding members to the current roster of 40 members.

SPEER Areas of Focus and Strategies

SPEER is currently engaged in or will soon be engaged in, an ambitious array of projects. They are broken into five major focus areas:

1. Buildings;
2. Leadership (Local and State);
3. Efficiency as a Resource;
4. Distributed Generation; and
5. Communication and Coordination

It is important to note that many of these areas are significantly interrelated, so collectively will comprise our overall plan to meet the SPEER mission. The various projects or efforts within these areas are identified as either “strategies,” which are well defined and underway, or currently being initiated, or “future strategies,” defined as areas in which we hope to expand our efforts and resources in the coming years.

FOCUS AREA #1: LEADERSHIP

Texas and Oklahoma have leaders who focus on energy efficiency, but rarely do they connect and coordinate efforts. It is even rarer that they are supported by a state- or region-wide network of other energy efficiency leaders. SPEER is working to engage with leaders on the city and state levels to inform their efforts and accelerate adoption of consistent energy efficiency policies and practices. We also plan to educate future leaders at high schools and colleges, and hope to add a focus area soon to work with veterans interested in working in energy efficiency and clean energy.

STRATEGY: CONVENE A REGION-WIDE COMMISSION ON E.E. POLICY TO RECOMMEND POLICIES

Last year, the Alliance to Save Energy convened the Alliance Commission on National Energy Efficiency Policy, a bipartisan group of 20 business people and elected officials – current and former – to find consensus national policies which the President and Congress could support, and local and regional policies which would attract broad support as well. The group set as a goal the doubling of US energy productivity by 2030.

With funding from the Cynthia and George Mitchell Foundation, SPEER will establish a similar, Texas Commission on Energy Efficiency Policy which will explore the best and most suitable means to reinvigorate the Texas commitment to conservation and efficiency. It will explore energy policies that could be enacted at the state and local levels related to the built environment, including: energy efficiency, water efficiency, demand response, energy storage, distributed energy generation and combined heat and power. The Commission will include select former and current elected officials or regulators, in addition to key members from business and industry.

STRATEGY: CREATE A WORKING GROUP OF EFFICIENCY LEADERS FROM BIG CITIES

Many policies and programs must be implemented at the local government level, including: energy code adoption and compliance, PACE districts, increasing efficiency in public buildings and building operations, community-wide energy upgrade initiatives, and building energy rating and disclosure policies.

With expected support from Texas SECO, SPEER is working to build and convene a working group of sustainability directors and/or energy efficiency managers (or equivalent if a city does not have one) from the largest eight cities in the region (Austin, San Antonio, Houston, Dallas, Fort Worth, El Paso, Oklahoma City, and Tulsa) to increase coordination and sharing of best practices among the big cities. We plan to expand this effort to smaller cities in coming years. SPEER will work with leading cities to provide peer support to other cities interested in pursuing one or more of the energy efficiency initiatives described below.

STRATEGY: ACCELERATE E.E. IN SMALLER CITIES THROUGH PARTNERSHIPS WITH COGS

We will also begin to work with these cities—one or two in the first year, adding another one or two each year—to lead regional efforts at their local Councils of Governments. We have recently

welcomed the Texas Association of Regional Councils (TARC) as a member, and have joined their organization as well. We are partnering with TARC to encourage cities to adopt and implement energy efficiency policies in regionally consistent ways to improve the effectiveness of these efforts.

SPEER has been a voting member of the North Central Texas Council of Governments (NCTCOG's) Energy and Green Advisory Board over the last year and a half, and this effort will be expanded to include other policies beyond code adoption. We are planning efforts with the Houston-Galveston Area Council (HGAC) to begin working with them to apply energy efficiency policies in a regionally consistent manner. Over the next three years, we hope to establish working relationships with as many COGs as possible so that we can reach as many cities and counties as possible, to serve as a resource and support for energy efficiency efforts in their communities.

FUTURE STRATEGY: DEVELOP THOUGHT LEADERS AND BUSINESS LEADERS OF THE FUTURE

In 2012, SPEER designed a program, the Sustainable College Program, which takes students through a building walk-through and basic energy assessment with industry professionals. The trainings conducted by SPEER's industry members have helped campuses to identify energy savings opportunities, while students developed valuable job skills and connections that will increase their competitiveness in the job market. If funded in 2014, SPEER's Sustainable College Program will work with five (5) highly motivated colleges that want to drive energy savings and teach students how to identify and implement efficiency opportunities. SPEER members will again provide their expertise to these Texas public colleges to benchmark buildings and help students learn how the process is completed. Of the five identified colleges, two will be a continuation of the 2012 program. Texas public colleges will benefit from their reduced energy bills and students will gain valuable workforce skills to carry into the clean energy economy.

FUTURE STRATEGY: PROVIDE EDUCATION PROGRAMS FOR LEGISLATIVE STAFF

The Texas Legislature meets for only five months every two years, and Oklahoma for five months annually. SPEER could begin to institute regular meetings during the interims (e.g., one or two per month) for staffers interested in energy efficiency policies. Many of the policies and programs discussed by the Commission on Energy Efficiency Policy (see previous page) could also be explored with staff.

Legislative staff often recommend policies to be considered, and are responsible for much of the research. Many of them later run for office themselves, or go on to work for regulatory agencies or statewide officeholders. While they are still legislative staff, there is considerable potential for increasing their knowledge of energy efficiency issues.

FUTURE STRATEGY: SUPPORT VETERAN TRAINING, JOB DEVELOPMENT, AND ENERGY LEADERSHIP

Over 1 million veterans will return from wars over the next several years. Many skills learned in the military translate directly into the skills needed in energy efficiency industries, and the growing workforce will enable the expansion of these trades and professions. The opportunities

for both veterans and for industry are immense, and veterans are more likely to succeed if industry-based organizations like SPEER are involved.

SPEER aims to work with large military bases and veteran jobs programs to ensure veterans have opportunities related to energy efficiency in Texas and Oklahoma. SPEER plans to work with the Truman National Security Project to help cultivate veterans as leaders in the movement to accelerate clean energy usage. Finally, SPEER will work with CleanTX Foundation, the University of Texas Energy Institute, Austin Technology Incubator and others to help bring a Defense Energy Center of Excellence to the region.

FOCUS AREA #2: BUILDINGS

Texas and Oklahoma both have massive amounts of unrealized energy efficiency opportunities in both existing buildings and new construction. There are many exciting local efforts underway to realize this potential, but very little coordination or consistency. SPEER is well suited to connect the various initiatives, programs, and efforts throughout the region to create or increase the entire region's momentum. We can provide a context and a broader shared vision, and in so doing, help multiply the impact of the many successful initiatives throughout the region, draw new participants, and elevate the entire milieu. Without this key facilitation and support, local stakeholders in the region would likely remain isolated, less recognized, and less effective than they could be otherwise.

STRATEGY: IMPROVE AND INCREASE AVAILABILITY OF FINANCING FOR E.E. PROJECTS

Energy efficiency financing is a perfect example of where a coordination function is vital. SPEER recognizes the potential importance of Property Assessed Clean Energy (PACE) as a finance strategy, and there are a range of activities underway to encourage and facilitate its adoption. By promoting consistency and, where possible, standardization and uniformity in PACE adoption, local programs will be more successful in drawing key participants including the financial community, for which this exciting program is the focus. We are working to identify the technical performance and monitoring standards adopted for the programs, and to assure consistent implementation.

With expected support from both Texas SECO and US DOE, SPEER has begun to bring initiatives like the Investor Confidence Project (ICP) to the attention of PACE program administrators and advocates, for example, so that energy efficiency data can be standardized and potentially attractive to investors on the secondary market. If successful, this model could also spread to other financing methods or initiatives, like energy saving performance contracting, on-bill repayment, Warehouse for Energy Efficiency Loans (WHEEL), and revolving loan funds like those used by the State Energy Conservation Office.

ICP, a project of the Environmental Defense Fund, aims to “enable a market for investment in quality energy efficiency projects by reducing transaction costs and engineering overhead, while increasing the reliability and consistency of savings.” ICP aims to standardize pre-efficiency retrofit assessments and savings projections, and post-efficiency retrofit measurement and verification. It also includes elements of commissioning and monitoring to make sure that savings persist. If these elements can be standardized, energy efficiency project data could reach actuarial level quality, bringing large amounts of capital into the space, lowering the cost of capital. SPEER believes this is a hugely important goal and has partnered with EDF, one of our member organizations, to evaluate any regional adaptations required, and encourage widespread usage of the ICP protocols in the region.

No Energy Service Performance Contracts (ESPC) have been entered into by a state agency in Texas since 2008. SPEER is working with industry, SECO, and legislators to inform agency participants that performance contracting is an excellent financing tool for public entities, and collectively work through issues that have prevented adoption of this vehicle.

STRATEGY: ENCOURAGE ADOPTION OF BETTER BUILDINGS CHALLENGES AND 2030 DISTRICTS TO INCREASE E.E. IN COMMERCIAL BUILDINGS

Three cities in our region have adopted DOE's Better Buildings Challenge, which is a community wide effort, and more are considering it. There are also several efforts underway to initiate Architecture 2030 Challenges, with the first 2030 Districts likely to be started in Dallas and San Antonio.

Both challenges have goals to drive energy savings of 20% or more in existing buildings. These efforts will be far more effective as cities coordinate and standardize their goals and structures to make it easier for private sector entities with buildings in multiple cities to participate. SPEER is working with manufacturers, building owners, local leaders, developers and other industry professionals, with expected support from SECO and the US DOE, to help advance these local initiatives throughout the region.

STRATEGY: INCREASE ENERGY CODE COMPLIANCE AND ADOPTION

SPEER supports the Texas Energy Code Compliance Collaborative, developing the first energy code compliance baseline study for Texas in June 2013. Although the State of Texas adopts a statewide building code it is up to local jurisdictions to adopt and enforce codes. We determined that 45% of the largest 217 cities in Texas had not yet adopted the residential 2009 International Energy Conservation Code, even though it legally became the statewide code effective January 1, 2012. with expected support from the Energy Foundation, Texas SECO, and US DOE, we are reaching out to local leaders, through our partnership with local Councils of Government, to increase adoption, implementation and enforcement of the energy codes.

Texas state law requires ICC certification for energy code enforcement staff, but cities self-reported about only 50% compliance with this requirement. Promoting increased certification will lead to greater awareness, expertise, and professionalism related to energy codes.

SPEER initiated the Texas Energy Code Ambassador Program, in partnership with the State Energy Conservation Office, Building Officials Association of Texas, the International Code Council, and the Building Codes Assistance Project. This program provides selected building officials two days of specialized training in energy codes. In return, we ask them to reach out to other building officials to promote adoption of the statewide code, encourage increased certifications of enforcement staff, and to offer "peer to peer assistance" in their areas.

We will expand our codes project in Texas and establish an Oklahoma Energy Code Compliance Collaborative to produce an Oklahoma compliance baseline study, similar to the one produced for Texas. This collaborative will be instrumental to developing an action plan to increase code compliance in Oklahoma, which also requires local adoption and enforcement.

As cities or states show an interest in moving beyond current codes, we will support the adoption of more efficient codes, providing training and resources for implementation.

STRATEGY: INCREASE BUILDING OPERATOR CERTIFICATION

As buildings attain higher levels of sophistication, additional expertise is required of building operators to achieve the efficiency in practice that is increasingly possible with new technologies. SPEER obtained the license from the Northwest Energy Efficiency Council and has developed a pool of qualified local instructors. This initiative was one of the membership's highest initial priorities.

In 2012 and 2013, SPEER initiated the first Building Operator Certification courses offered in Texas and Oklahoma. We plan to offer local courses throughout the region, to increase expertise and professionalism among building operators. The program has been verified to yield an average savings of 119 megawatt-hours per trained operator per year in other regions where it has been implemented. We see this program as a key strategy to help us achieve real and lasting energy efficiency throughout the building sector and have a goal to reach from 100 - 150 building operators per year in the region.

FUTURE STRATEGY: PROMOTE COMMISSIONING OF EXISTING BUILDINGS

Commissioning (also referred to as retro-commissioning or Continuous Commissioning) is the practice of making operational improvements and/or equipment tune-ups to reduce energy consumption in buildings. The reduction of energy consumption also reduces emissions from power plants.

The Texas Emissions Reduction Plan (TERP) has been a key part of reducing NOx emissions in nonattainment counties since its establishment in 2001. The original TERP legislation allowed for energy efficiency to be funded by the program, but it has not been funded outside of the first two years of the program. In 2013, a legislator asked for SPEER's input to include efficiency in the TERP program as a funded strategy to reduce emissions, and we helped to craft a solution.

The effort to include efficiency as an emissions reduction strategy led to substantial interest in this issue. Texas A&M's Energy Systems Laboratory calculated that paying 25-50% of the cost of retro-commissioning a public building would reduce NOx cost-effectively compared to diesel retrofits which are currently incented under the TERP program.

We see this as a future strategy which reduces energy consumption and air emissions while saving the taxpayers money. We will work to find other avenues or initiatives to support the promotion of commissioning in all sectors.

FUTURE STRATEGY: PROMOTE NET ZERO BUILDINGS

SPEER sponsored a US DOE workshop in Dallas called "Net Zero Ready Homes." We plan to co-sponsor several more and to participate in a variety of efforts to ready the market for homes that produce as much, or nearly as much, energy as they consume. Our focus will always be on energy efficiency first, while also emphasizing the exciting technologies that can move efficient buildings toward net zero energy, including building controls, connected thermostats and smart appliances, renewable energy, and energy storage.

FUTURE STRATEGY: OVERCOME BARRIERS TO MULTIFAMILY ENERGY RETROFITS

SPEER members have begun to develop a coordinated plan to develop enhanced performance data, and validated building performance modeling capability for multifamily housing, to mitigate or overcome the infamous “split incentive” barrier associated with all rental properties.

The ultimate purpose of quantification is to enable third-party funders to incorporate the quantified amount of utility cost reduction into a financial underwriting and repayment model that lowers the upfront cost and risks of energy retrofits and frees investment capital to fund these improvements on a large scale. The uncertainty between the predictive energy software model and actual energy usage data in the existing buildings needs to be reduced to a level that can be incorporated into and used by financial models for investment evaluation. This data will also be useful to utilities in establishing and promoting participation in cost-effective incentive programs.

SPEER is committed to making an impact on affordable housing by reducing energy costs. We will seek outside funding and work with other organizations including US Housing and Urban Development (HUD), the Texas Department of Housing and Community Affairs (TDHCA), the Center for Neighborhood Technology, and Foundation Communities to analyze and capture data and establish performance thresholds which would yield support of various business models that would promote energy efficiency in multifamily settings and in existing buildings of other types, such as office buildings leased to multiple tenants which often have a similar split incentive.

FUTURE STRATEGY: SUPPORT GREEN MLS AND GREEN APPRAISALS

Builders of high performance homes are frustrated by the inability to have their added value and cost properly appraised. Without an appraisal that captures the extra value, builders may justify high performance features as a marketing advantage, but cannot fully recoup the incremental investment in the home.

Progress has been made in recent years in this area, as the Appraisal Institute has created the “Green Addendum” to standard appraisals. Homeowners and builders can now insist that their appraiser be trained to use the green addendum and that they use it on their home or building. However, a lack of data is again a barrier. Appraisers assign value based on comparable properties, or “comps.” Without enough comparable high performance homes in a given area (school district, zip code, etc), appraisers can use the green addendum and still not assign appropriate value to high performance features.

To overcome this barrier, SPEER plans to work with realtors, builders, energy raters, developers, and others to standardize green fields in the MLS’s used in Texas and Oklahoma. National organizations like the Center for Neighborhood Technology and Institute for Market Transformation have begun the effort to get the dozen or so software vendors for the MLS to standardize data. Meanwhile, however, local communities with which we work can organize and advocate for a standard approach to including data related to energy and water efficiency in their MLS.

When the data is standardized in the MLS, not only will high performance homes be appraised more accurately, consumers will be able to search for these features more easily, driving demand for energy efficient homes. Campaigns can be designed to encourage people to look for these fields and ask for high performance homes. Further, SPEER and other organizations will be able to collaborate on reports quantifying the sale price difference between high performance homes and inefficient ones, which will encourage more retrofits as homeowners seek to maximize the return on their investment in their home.

FUTURE STRATEGY: INTEGRATE ENERGY AND WATER EFFICIENCY EFFORTS

Water resources are limited in our entire region, particularly in some of the fastest growing areas of Texas and Oklahoma. Texans recently passed a constitutional amendment to jump-start financing for water projects in the state. The plan will dedicate \$2 billion in state money to start a low-interest loan program for water projects in Texas. One of the provisions in this plan is a requirement that not less than 20 percent of the funds out of this new funding source go to conservation of water, or re-use of water. We hope to work with the Texas Water Foundation, Texas Leadership Roundtable on Water, and the national Alliance for Water Efficiency, to identify ways in which SPEER can help support ongoing water conservation and efficiency efforts, expand the region's understanding of the relationship of water and energy use, refine messaging regarding the energy-water nexus, and engage cities in best practices in water use reduction.

FOCUS AREA #3: EFFICIENCY AS A RESOURCE

As recently as 2007, now Texas Speaker Joe Straus authored an omnibus energy efficiency bill which doubled the state's investor-owned utility efficiency programs, created a sales tax holiday on Energy Star products, and mandated local government efficiency improvement goals. In 2010, the Texas PUC adopted a rule to further increase Texas utility efficiency goals.

Since then, however, a number of Texas legislative and regulatory changes have undermined these commitments to efficiency. In its first scorecard, five years after the implementation of Texas' Energy Efficiency Resource Standard—the first such standard ever adopted in the US—the American Center for an Energy Efficiency Economy (ACEEE) rated Texas 11th among the states for energy efficiency attainment. Only five years later, in 2012, the state was ranked 33rd. Texas' energy efficiency goals lag even states like Indiana, Ohio, and Arkansas.

Oklahoma has improved its ranking in recent years, by slowly expanding utility efficiency programs and attention to state buildings, but still ranks in the bottom fourth among the states. Increased production and availability of oil and gas resources, coupled with a recession, has restricted progress on increasing energy efficiency. Programs that were originally initiated to overcome market barriers or realize cost effective savings have sometimes come to be considered government mandates, or “out of market” subsidies.

STRATEGY: GET E.E. INCLUDED AS A RESOURCE IN TEXAS ELECTRIC MARKETS

There is an opportunity for Texas to recover its leadership in efficiency by finding appropriate and creative means to incorporate efficiency into its evolving market construct.

With funding from the Cynthia and George Mitchell Foundation, in June 2013, SPEER released a white paper entitled “Toward a More Efficient Electric Market,” making the case that energy efficiency be allowed to participate in the ERCOT electric market, as several other organized electric markets in the US have done for years. In August, SPEER convened a group of 20 experts for a half-day, in-depth discussion of the concepts in the whitepaper to further evolve the conceptual framework for an efficiency market. In September, SPEER presented the paper and ideas to the Demand Side Working Group at ERCOT and submitted comments to the PUCT.

Over the next several years, the ERCOT market will likely undergo significant changes to its overall structure. The State leadership is considering migrating from an energy-only market to some form of a capacity market. ERCOT has proposed a complete rethinking of the market's ancillary services in recognition of the challenges of the aging infrastructure and the opportunities associated with new technologies. Changes underway to establish an Operating Reserve Demand Curve have already yielded discussion of including energy efficiency as a resource. Oklahoma also, as part of the Southwest Power Pool, will see implementation of significant wholesale market changes beginning next year. We plan to continue to serve as a convener and thought leader in any discussion of market reforms, on the basis that any electric market operates most effectively when all alternatives, including demand-side alternatives, are fully and fairly included.

FUTURE STRATEGY: ALIGN UTILITY INCENTIVES WITH INCREASING ENERGY EFFICIENCY AND INTELLIGENT ENERGY MANAGEMENT

The administration of state regulated utility efficiency programs are still critical to attacking market barriers and market failures which prevent optimal investments in energy efficiency, even should markets for efficiency increase the rate of acquisition of cost effective efficiency.

Early in 2013, in a whitepaper entitled “Disruptive Challenges,”¹ the Edison Electric Institute defined what it called a “vicious cycle” for utilities. As end-users become more efficient and increase usage of distributed generation, their sales go down, causing their rates to increase to make up the revenue shortfall. Higher rates cause additional customers to increase efficiency and self supply, causing rates to go higher, and the cycle continues to repeat. While nothing may prevent the advent of a more decentralized electric system, states should align the incentives of utilities and their customers to minimize wasted effort and energy.

Texas is one of a minority of states to have no form of Lost Revenue Adjustment or Decoupling in place. Although the State adopted a bonus for utilities exceeding their efficiency goals, Texas transmission and distribution utilities run their efficiency programs, but have their profits tied to volume of sales, giving them little incentive to increase energy efficiency spending or program effectiveness. Oklahoma utilities have won a lost revenue adjustment mechanism and a bonus, but not decoupling.

Both states would benefit from a dialogue about how utilities can become service businesses, compensated for reliability, customer service, and efficiency delivered, rather than merely for the volume of electrons passed through their infrastructure. This is a major paradigm shift and will take significant time and effort to enact, but SPEER is an excellent position to provide thought leadership and engage the right stakeholders to begin the process.

FUTURE STRATEGY: CHAMPION CUSTOMER AND THIRD PARTY ACCESS TO ENERGY USAGE DATA

In 2005, the Texas Legislature passed HB 2129, which required a smart meter rollout to serve the majority of the state’s residents. In the intervening years, at the direction of the PUCT, the electric utilities themselves built a portal, called Smart Meter Texas (SMT), through which customers in the competitive portions of the state can access their smart meter data today. Thus, most of Texas is “Green Button” compliant; that is, most customers can access their data in a standardized format. But the information that is provided is so limited that it is of little use to consumers themselves, and little used. The real purpose of the smart grid deployments was to make the data available to third parties that can turn this data, together with other information and technology, into actionable information and useful tools for consumer convenience and control of their energy use.

SMT allows any customer to receive basic consumption information and history, and allows a third party to obtain its customers’ consumption history to support an energy audit, evaluate energy usage, or provision on-site equipment to communicate with the meter directly. However,

¹ <http://www.eei.org/ourissues/finance/Documents/disruptivechallenges.pdf>

a usability evaluation funded by the PUCT found the site in need of redesign and improvement to obtain a more intuitive, user friendly interface. Similarly, work is just getting underway that will support third parties wishing to have access to a continuous stream of meter data for their customers through the portal. Today, only the transmission and distribution utilities and competitive retailers can access meter data continuously. Both the usability improvements and the third-party access improvements needed to make the site compliant with “Green Button Connect” standards will hopefully be completed by the end of 2014. We believe this is important to support customers’ ability to develop intelligent energy management.

In addition, there is a good deal of progress being made by the Open ADR Alliance to win over participants in the smart energy industry to workable communications and interoperability standards. This is a critical step to the achievement of the Internet of energy using things, as some now refer to it. While new interoperable products will begin to roll-out in increased numbers in 2014, the transition to smart technologies will be accelerated to the extent that states, local governments, and utilities adopt and support these standards.

SPEER plans to help champion the final development of Smart Meter Texas to ensure compliance with Green Button Connect, opening a range of demand side energy management tools and services to be available to customers who wish to save money and energy. We also hope to encourage expanding participation in SMT by utilities not currently using the portal, both in Texas, and potentially, in Oklahoma. Finally, we hope to encourage governments and utilities to support and rely upon Open ADR standards in any direct offerings of their own or in establishing or facilitating offerings of smart-energy resource solutions in their territories.

FUTURE STRATEGY: PROMOTE ENERGY EFFICIENCY AS AN AIR QUALITY IMPROVEMENT STRATEGY

Energy efficiency can help reduce emissions of all air pollutants, alleviating air quality compliance issues facing the region. In fact, many states, local governments, and utilities are exploring how to get environmental credit for their efficiency efforts. In Texas, we have precedent for including efficiency in the State Implementation Plan for a region in non-compliance with the Ambient Air Quality Standards of EPA. Individual permit applications can also be a place to seek efficiency improvements where they are the least cost or best available alternative. As carbon emission regulations under the Clean Air Act (section 111(d)) are adopted and enforced, and as many areas strive for attainment with ozone, NO_x, SO₂, and PM standards, energy efficiency efforts may be among the most cost-effective methods for Texas and Oklahoma to comply.

In collaboration with the Region 6 EPA staff, city implementation planners, and Councils of Government, and the Texas A&M Energy Systems Lab, sponsors of the Clean Air with Energy Efficiency Conference each year, we will explore and promote the opportunity to address forthcoming and existing environmental regulations through additional investment in energy efficiency, and allow energy efficiency to be an eligible measure for funding from the Texas Emissions Reduction Program (TERP).

We will build state and local support to allow and encourage energy efficiency to make a significant contribution to the air quality improvement of the region.

FOCUS AREA #4: DISTRIBUTED GENERATION

STRATEGY: INCREASE MARKET PENETRATION OF CHP AND WASTE HEAT RECOVERY

Starting October 1, 2013, SPEER became the regional partner of the Southwest Energy Efficiency Project (SWEEP) for the Combined Heat and Power Technical Assistance Partnership (CHP TAP) funded by US DOE's Office of Advanced Manufacturing. SWEEP will manage the Partnership in its five states and work with SPEER to provide technical support in Texas and Oklahoma.

The partnership's objective is to provide essential support to encourage the market development of CHP's suite of technologies and to substantially contribute to the national goal of 40 gigawatts (GW) by 2020. Our work includes education and outreach as well as technical assistance to a variety of stakeholders including end-users (primarily large commercial, industrial, and institutional), state decision makers, electric and gas utilities, trade associations and non-profit organizations. This assistance includes evaluating the economic, energy, reliability and environmental value of proposed systems. The CHP TAP provides fact-based, unbiased information on CHP, including technologies, project development, project financing, local electric and natural gas utility interfaces, and related best practice policies.

Increasing CHP will be a serious challenge. In its assessment of energy efficiency policies nationally, ACEEE identified CHP as the only area where the US was backsliding on energy efficiency, stating the percentage of energy generated by CHP had decreased in recent years. SPEER plans to focus on end-users, to understand what holds back commercial building owners and managers, and industrial consumers from further employing CHP at their sites, and to offer educational forums to introduce them to CHP, Waste Heat to Power (WHP), and district heating and cooling with CHP, and the industry professionals that provide related services.

SPEER plans to convene industry stakeholders to identify barriers and obstacles to increased usage of CHP and then systematically work to remove those barriers, primarily by working with the Texas Combined Heat and Power Initiative, an industry advocacy organization, and the Texas State Energy Conservation Office, Oklahoma Secretary of Energy, and HARC, a private research facility recently funded to support such efforts in 2014.

FUTURE STRATEGY: INCREASE USAGE OF DISTRIBUTED SOLAR, GEOTHERMAL, AND ENERGY STORAGE.

To achieve extremely high levels of energy efficiency and net zero homes and buildings, expanded use of distributed generation including distributed renewable generation, and energy storage become necessary. SPEER plans to work on policy and educational initiatives to help pave the way for increased adoption of these generation technologies and the intelligent energy systems that will be required to implement them.

FOCUS AREA #5: COMMUNICATIONS AND COORDINATION

One of SPEER's most vital roles is to bring people together, to create a community of interests and common goals. We do this in a variety of ways: through an Annual Summit, an Annual Member Retreat, and regular monthly meetings of all of SPEER's four committees. SPEER also coordinates with numerous national organizations, learning from their experience and helping extend their reach successfully into Texas and Oklahoma. Longer term, we hope to expand efforts to communicate more effectively using the SPEER website to reach consumers and end-users, as well as advocates and businesses in energy efficiency. We envision someday helping to coordinate a cooperative marketing campaign for advanced energy efficient products and practices with our members and the larger efficiency industry.

STRATEGY: ANNUAL SUMMIT

There are a few energy efficiency-related conferences already in Texas, and SPEER helps to support and co-market them. But none have reached the scale or impact that we think the SPEER Summit has and can potentially achieve.

In 2013, we drew 200 registered participants to our First Annual Summit. We had nine sponsors and provided excellent content and work sessions to our participants. Our goal is to raise our regional conference to the level that the Midwest Energy Efficiency Alliance (MEEA) has reached in recent years. They drew 600 participants and generated over \$400,000 in revenue in their tenth year. Our goal is to reach those levels by our sixth year, in 2018.

Many new ideas, connections, approaches, and strategies are hatched at industry-wide conferences. Open forums where such ideas can be surfaced and examined among industry participants and stakeholders can lead to emerging consensus on market-level innovation or standards. We are confident the SPEER Summit can be just that kind of catalyst for Texas and Oklahoma.

STRATEGY: MEMBER RETREAT

Roughly six months opposite the Annual Summit, SPEER convenes an Annual Member Retreat. This is based off of the model of the Midwest Energy Efficiency Alliance which also holds an annual conference and an annual member meeting, roughly six months apart. The purpose of the Member Meeting is to review the strategic plan of the organization and refine it based on the goals and objectives of the membership at large, as well as contribute to the sense of community.

STRATEGY: MEMBER COMMITTEES

SPEER staff provides member support through a series of conference calls in four major areas of interest: New Buildings, Existing Buildings, New Homes, and Existing Homes. Each of these committee calls allow members to get frequent updates from SPEER staff on ongoing projects, share information and network with others working in the same area of interest, and plan for future projects.

STRATEGY: INCREASE COORDINATION WITH OTHER ORGANIZATIONS

In a short two years, SPEER has established itself as a go-to resource for energy efficiency in the south-central US for national organizations, as well as organizations located in Texas and

Oklahoma. SPEER is often asked to support the efforts of other organizations, and to facilitate collaborations to increase overall effectiveness of energy efficiency initiatives.

SPEER joined a pre-existing Memorandum of Understanding along with the other five REEOs to coordinate in a number of program areas. These organizations have been a very valuable resource in our development and strategies. The Building Program/Codes Directors of all the organizations meet regularly, as do the executive directors. The US DOE and many national organizations see the REEOs as regional deployment partners, so that projects which otherwise would have only limited, localized impacts can scale more quickly.

SPEER also collaborates with a number of national organizations, providing input and intelligence on local endeavors and circumstances, while receiving guidance about national best practices at the same time. Some of the key organizations with which we have established working relationships are listed here.

US Department of Energy

SPEER helps DOE in a variety of areas, including supporting workshops and trainings organized by DOE, helping participants in Better Buildings Challenges or Alliances, the CHP TAP program, and participating in several State and Local Energy Efficiency Action (SEE Action) groups.

American Council for an Energy Efficient Economy

SPEER provides input on both State and City Scorecards, ensuring that the level of energy efficiency attainment in Texas, Oklahoma, and the major cities in the region are accurately reflected. We also coordinate on many of the whitepapers ACEEE publishes, and provide a regional perspective at ACEEE conferences like the Market Transformation Conference last held in Washington and the EE as a Resource Conference last held in Nashville.

Building Codes Assistance Project

SPEER worked with BCAP to initiate the Texas Energy Code Compliance Collaborative, and in working with BCAP, SECO, and other organizations has implemented the Energy Codes Ambassador Program in Texas. These efforts will be expanded in 2014 to launch similar efforts in Oklahoma.

Center for Neighborhood Technology

CNT works to increase valuation on appraisals for high performing, energy efficient homes and buildings. Part of the way they do this is through “greening the MLS” or working locally to establish uniform, standardized fields for things like Home Energy Scores, green certificates like Energy Star, and other energy efficient attributes/equipment, such as high SEER AC, extra insulation, or efficient windows. SPEER is working with CNT to green the MLS listings in Texas and Oklahoma.

Environmental Defense Fund

SPEER is helping to get the Investor Confidence Project's (an EDF initiative) protocols recommended for inclusion in local PACE projects. SPEER also coordinates with EDF by participating in a group of environmental advocates who meet regularly to discuss energy efficiency policies at the Legislature and PUCT. EDF will soon be launching a Smart Power project which will have substantial overlap with SPEER's Markets work.

Institute for Market Transformation

SPEER has agreed to coordinate with IMT on several initiatives, such as their City Energy Project. For the CEP, SPEER helped IMT and partner organization NRDC understand which cities in Texas and Oklahoma might be open to various energy efficiency policies. Our guidance has helped them to focus their efforts.

New Buildings Institute

NBI has produced a census of net zero energy buildings. SPEER is working with NBI to update it, and accurately account for projects in TX and OK, while encouraging additional net zero development.

Open ADR Alliance

Open ADR is an expanding standard that has evolved to support the interoperability of the Internet of things associated with the smart grid and intelligent energy use. SPEER has partnered with the Alliance to support and accelerate the adoption of their standards in the region.

Peak Load Management Association

The PLMA is an industry trade association of demand response aggregators and the many technology and service companies that support the expanding use of intelligent energy systems and controls. We support and participate in their two annual conferences and periodic webinars to promote a wider understanding and appreciation for the benefits of demand response and intelligent load management.

Smart Grid Consumer Collaborative

SPEER intends to partner with and support the work of the SGCC in this region. With smart meters now deployed in over 6 million homes and businesses in the region, there is tremendous opportunity, which is only hindered by a lack of understanding or appreciation for the potential inherent in the smart grid.

SPEER also coordinates with many local organizations, supporting them in their efforts while receiving support on our focus areas, including:

State Energy Conservation Office and Oklahoma Department of Commerce

The state offices in our region have been supporting local efforts in their states and will both be key players in our efforts in their states. Coordinating resources and programs across the region will allow for efficient use of training, outreach and ultimately the success of our mission and goals.

Keeping PACE in Texas

Keeping PACE is developing toolkits for local governments to adopt PACE districts in consistent and standardized ways. SPEER is supporting this effort on several working groups, with a focus on ensuring that requirements for the districts will give investors the confidence to invest in PACE financing at a scale that can significantly move the market.

Oklahoma Sustainability Network

OSN has been a leader in many energy efficiency efforts in Oklahoma over the last decade, with a focus on increasing utility energy efficiency programs. OSN is a key partner in Oklahoma, helping SPEER and its members understand the rapidly improving and increasing utility programs there, which have recently exceeded Texas's levels.

Texas Association of Regional Councils

As outlined in the Cities section below, TARC is a key ally (and SPEER member) committed to work with us on a suite of efficiency policies that can be implemented at the local level, which will be far more effective and impactful if implemented consistently across a region (e.g., codes adoption and compliance, PACE, and efficiency challenges.)

Texas Combined Heat and Power Initiative

A trade association of companies engaged in manufacturing, designing, deploying or using combined heat and power, waste heat to power, and district energy systems with CHP, this organization was created to promote a positive legal and regulatory environment for this important set of technologies, and is an important ally in our CHP TAP program support.

FUTURE STRATEGY: DEVELOP A COLLABORATIVE EFFICIENCY MARKETING AND DELIVERY CAMPAIGN AND MAKE SPEER'S WEBSITE THE GO-TO RESOURCE IN THE REGION

In 2012, as the potential for rolling outages gained significant public attention, SPEER joined the Texas PUC and local leaders to educate the public, both about market conditions and available avenues reduce consumption and participate in energy management programs. But this effort did not go far enough to have a lasting impact.

Political leaders and markets respond to consumer interests, and we must continue to improve our efforts to build consumer awareness through education and marketing efforts. But, as an industry we must also seek ways to reduce the hassle of achieving energy efficiency. SPEER, working in concert with other energy efficiency organizations, and industry, could work to promote common themes, brands, and messages to increase the impact of otherwise disparate education and marketing campaigns. Perhaps more importantly, we can work with industry to simplify the shopping experience of motivated consumers who have heard the message and understand the basic value proposition of efficiency, but find it difficult in today's market to accomplish. That is, the cooperative marketing should be linked with greater cooperation in delivery of services. We made a start at this objective, but would like to continue to explore and pursue this vital work.

In conjunction with efforts to create a cooperative marketing campaign, and help organize the delivery structure of efficiency, SPEER also would like to make the SPEER website the first place energy efficiency researchers, industry members, advocates, and consumers think to go for knowledge and information about efficiency in Texas and Oklahoma. Establishing SPEER's website as a high traffic, trusted place for efficiency information, will create a virtuous cycle by attracting additional participants in our various efforts which will help us succeed in meeting our goals and fulfilling our mission and purpose.

All of our efforts and focus areas are important, but successfully communicating the importance of these efforts is what will allow us to expand our reach and build on our successes.

Conclusion

SPEER has experienced robust growth in its first two years and is poised to grow even more rapidly in coming years. Texas and Oklahoma have lagged most of the country on efficiency attainment, but with a strong member group assembled and support from governmental entities and private foundations, SPEER will change that dynamic.

Through convening an annual summit and education and training events, through providing thought leadership and innovative paths to accelerate energy efficiency, SPEER can and will have a significant impact in the region and beyond.

To achieve this vision and increase energy efficiency in one of the fastest growing regions in the US, we need support. We invite companies, foundations, non-profit organizations, public entities, and anyone with an interest in and a passion for increasing energy efficiency to join us.