

Georgetown University Energy Prize Application

To Participate in the Quarterfinal Stage

Mike Williams, Malini Srivastava,
Dan Mahli, Kristina Heggedal

Submitted: June 30, 2014

Document 1: Biographies

Mike Williams

Mike Williams was elected to the Fargo City Commission in 2004 and re-elected in 2008 and 2012. He is the liaison to the Fire Department and Information Services Department as well as many committees, including Metropolitan Council of Governments, Metro Area Transit Coordinating Board, and Renewable Energy and Conservation. He works extensively on Fargo's Comprehensive Growth Plan, where he helps identify goals and strategies to help Fargo grow in a vibrant, safe, efficient, sustainable, and attractive manner. Since 2003, he has worked at Family Mutual Insurance as a risk manager and adjuster to create sustainable rural economic development opportunities and increase efficiency. He is very passionate about community outreach and engagement, outdoor activities, and renewable energy and conservation advocacy.

Dan Mahli

Dan Mahli is the Community Development Administrator for the City of Fargo. He is responsible for the development of housing programs, neighborhood initiatives, historic preservation, human relations, as well as administration of the City's Federal and local grants. During times of emergency, the Department of Planning and Development is responsible for logistics and resource support, as well as shelter, volunteer coordination and transportation. Dan has been with the Fargo Department of Planning and Development since 2001. Prior to working with the City of Fargo, Dan served as a Field Representative for US Senator Byron Dorgan and as the Executive Director of the Park Rapids (MN) Area Chamber of Commerce. Dan has a Master's Degree in Public and Human Service Administration from Minnesota State University Moorhead and a bachelor degree from North Dakota State University.

Malini Svastava

Malini Srivastava is a Certified Passive House Consultant and registered architect in the state of Minnesota. In her roles as a co-Principal of Fargo-based Design and Energy Laboratory and Senior Project Architect on a partnership track with Salmela Architect, she provides complete design and architectural services for projects with challenging conditions related to environmental and efficiency measures. Being well-versed in energy modeling, hygrothermal analysis and certification programs, she brings comprehensive environmental strategies to her projects. Her extensive involvement with projects has led to national and regional awards for design, preservation and efficiency, LEED certification, Passive House pre-certification and a Committee on the Environment National Top Ten Environmental building award.

As an Adjunct Assistant Professor at the University of Minnesota College of Design and as a visiting faculty member at North Dakota State University's Department of Architecture and Landscape Architecture, Malini has taught architectural design studios, including a full-scale Passive House Design/Build studio, and has served on several design and award juries. Her research work has received recognition through grants and exhibitions and has been published nationally and internationally.

Malini completed energy analysis and sustainability planning for the Net Zero Itasca Biology Research station for the College of Biological Sciences, University of Minnesota and has served on their Green Team advisory group. She served as a founding Board Member for the North Dakota Chapter of the US Green Building Council.

Document 1: Biographies

Most recently, Malini was awarded a two-year Bush Fellowship, which seeks to "provide individuals with opportunities to increase their understanding of, capacity for and practice of leadership to work with others to improve the quality of life in their community. It is both a recognition of extraordinary achievement and a bet on extraordinary potential." Malini's Bush Fellowship project aims to increase energy efficiency in existing North Dakota building stock through mid-scale interventions called "one block at a time."

Tracy Walvatne

Tracy Walvatne is Office Manager at Kilbourne Group. Tracy graduated from North Dakota State University in 1990 with a major in hotel/restaurant management and a minor in food and nutrition. Tracy started at the Fargo branch of Food Services of America as an intern and eventually worked her way up to the position of district manager. She also was a sales executive for the Coca-Cola Co., for seven years. While employed by Coca-Cola, Tracy and her husband, Randy, bought the downtown Fargo bakery/café, previously known as Cynthia's Custom Cakes, and re-opened it as Josie's Corner Café and Bake Shop in 2003. Tracy became Kilbourne Group's office manager in May of 2013.

Scott Handy

Mr. Scott W. Handy has been the President and Chief Executive Officer of Cass County Electric Cooperative, Inc. in Kindred, ND since February 2002. Mr. Handy serves as the Chairman for the Rural Electric Management Development Council and the Minnkota Power Cooperative Manager's Advisory Committee, and served as chairman for the North Dakota Association of Rural Electric Cooperatives Manager's Advisory Committee. In addition, he serves as the board chairman for Greater Fargo-Moorhead Economic Development Corporation's Growth Initiative Fund, a public/private loan pool that lends money for business expansion, and board member of the North Dakota State University Quentin N. Burdick Center for Cooperatives and board member of the North Dakota State University Alumni Association. Mr. Handy has been a Director of National Rural Utilities Cooperative Finance Corp. since 2009.

Mark Nisbet

Mark Nisbet is the North Dakota Principal Manager for Xcel Energy, the fourth-largest combination natural gas and electricity company in the nation, serving 2.2 million electricity customers and 1.8 million natural gas customers in eight Western and Midwestern states. Mark serves on the Greater Fargo-Moorhead Economic Development Corporation executive board. He is on the EmPower North Dakota Commission and a member of the North Dakota Chamber of Commerce. He serves as chairman of the Governor's Centers of Excellence Commission.

Document 2: History and Current Status of Existing Energy-Savings Programs

Fargo's Renewable Energy and Conservation Committee (RECC) convened in April 2005 and has since been working "to pursue, plan and implement policies and/or programs that will foster conservation, utilize and develop renewable resources, and protect the environment". The committee focuses on studying and implementing practices that best use and conserve resources while improving energy efficiency, especially in municipal buildings. Recommendations by the committee that have already been implemented include expanding the use of biodiesel fuel to all Metro Area Transit buses, moving forward with the methane electrical generation project at the landfill, and working with EAPC architects on energy and water saving features of the new garage for Metro Area Transit vehicles.

The new landfill transfer station and baling facility reduces trash scattering by wind and utilizes renewable energy resources that are available at the landfill, including methane gas, solar and wind energy. Methane gas produces electricity, which is sold to a local power cooperative. The transfer station is heated by exhaust and engine heat from the generator that produces electricity from methane gas.

Metro Area Transit vehicles, or MATBUS, have greatly reduced their energy consumption. The fleet uses 20% biodiesel fuel during summer months and 2% blended biodiesel fuel during the winter. The garage power generator reduces pressure on local power grids during peak energy use and the bus wash water is cleaned and re-used to save water and energy. There are also four hybrid buses in the fleet, which consume 50% less fuel than regular busses.

Other examples of Fargo's commitment to energy efficiency include LED traffic lights and the Wastewater Treatment Plant, which sells 2 million gallons of wastewater to a local ethanol plant rather than releasing that water into the Red River, which also diminishes their need to draw water from fresh river or groundwater sources. Also, city leaders recently approved a land-lease agreement for property that could house a wind turbine, which the city would generate for sale.

GO2030

Fargo's comprehensive growth and development plan, Go2030, develops a vision for the City of Fargo. Three of the proposed initiatives include community-wide energy efficiency and renewable energy production, city led energy efficiency and reduced emissions, and a smart grid. The first initiative, Community-Wide Energy Efficiency and Renewable Energy Production, supports energy efficiency improvement for older buildings while ensuring that new construction upholds energy standards from the start by partnering with builders. It includes recommendations to promote education, incentives, and innovative financing for energy efficiency retrofits, strengthen building codes and regulations to promote energy goals, support sustainable transportation options and renewable energy production. The city must lead these efforts, which is where the second initiative comes in, to increase efficiency and reduce emissions. This will be done by establishing an energy baseline, conducting energy audits on every building and following them up with assistance to improve consumption levels. This plan becomes feasible through the exploration of various energy sources and renewability of these sources. A smart grid would incentivize local, clean, renewable power by upgrading the infrastructure that provides energy. Recommendations to collaborate with utility providers and various levels of government will ensure that the project will be supported from multiple angles.

Document 2: History and Current Status of Existing Energy-Savings Programs

Many of the Go 2030 initiatives related to water and the environment indirectly impact energy consumption. Waste and recycling, green storm water infrastructure, drinking water quality and supply, light pollution, and water conservation initiatives all affect energy efficiency and renewable generation. By recycling current products or limiting the demand for future products (such as lower water bottle consumption due to healthy, local, drinking water or longer lasting light bulbs, such as LED), Fargo will require less energy to transport or create these goods in the future.

The Go 2030 plan also includes multiple catalysts that emphasize development that will reduce vehicular dependency. These ideas include walkable mixed use centers, active living streets, an all-season city-wide trail loop, and energy efficiency and renewable generation. Walkable mixed use centers and active living streets encourage human powered movement and growth of residential areas within short distances of work, school, shopping, and nutritious food. Neighborhoods and streets have been identified where such development would be most effective and well received. The all-season citywide trail loop provides a form of recreation that is easily accessible from one's home and does not rely on energy, as trails do not require heavy maintenance or any machinery or engines, to enjoy. These projects promote a lifestyle that embraces nature and the outdoors while limiting reliance on energy "eating" buildings and machines.

I. NOW IS THE TIME

The Georgetown University Energy Prize (GUEP) could not have come at a better time for the City of Fargo. We see this as a tremendous and timely opportunity which will allow us to capitalize on our energy as a growing city, mobilize innovative people, and utilize community expertise and resources. The Georgetown University Energy Prize will trigger a spirit of cooperative competition as we develop, refine and implement our existing Go 2030 Comprehensive Plan.

Tremendous change is occurring throughout North Dakota, and Fargo is no exception. Given North Dakota's cold-climate conditions, its remarkable population growth, the strong presence of the fossil fuels industry, and the near-lowest in the nation energy costs (48th lowest retail price for gas and 51st lowest retail price for electricityⁱ), it is not surprising that the state ranks fourth-highest in energy consumption per capitaⁱⁱ and dead last in a ranking of energy efficiency policy and program efforts.ⁱⁱⁱ In 2013 the state's Bakken oil patch produced 313,275 barrels of oil, up from 62,780 barrels in 2008, making the state the second-largest producer of oil in the country after Texas.^{iv} Fargo's population, demonstrating a ripple effect from activity in the Bakken oil patch, grew by 17.5% per the 2010 Census and is projected to exceed a quarter of a million people by 2040. Left unplanned, this rate of growth could be detrimental to a long-term sustainable vision and not at all the "worthy city of the future" envisioned by Senior Planner Dan Mahli. According to City Commissioner Mike Williams, "Fargo currently has 48 sections, or 48 square miles, of annexed land for a population of about 112,000. The city is projected to reach about 260,000 people by 2040. If we continue to grow the way we are, we would need 112 sections of land, larger than Minneapolis and St. Paul combined."^v

Yet, despite challenges, Fargo benefits from unique circumstances. Unlike outstate North Dakota, Fargo's economy does not depend solely on the traditional sectors of agriculture and oil. Based on the concept of S.T.E.A.M (Science, Technology, Engineering, Arts and Manufacturing), Fargo's strong and diverse economy includes healthcare, finance, technology, manufacturing and education businesses, organizations and institutions. Growth combined with a diverse and invested community makes Fargo a "Midwest magnet for creative types and entrepreneurs"^{vi} and has led to a low unemployment rate (~2.5-3%). Along with the optimism and energy come voices in strong support of responsible growth: deputy Mayor Tim Mahoney's concerns for the quality of building practices, Professor Copeland's warnings about poverty and homelessness, Developer Doug Burgum's ideas of a strong city core, Bush Fellow and Architect Malini Srivastava's work on the dire need for large-scale efficiency measures, Commissioner Mike Williams' and Commissioner Dave Piepkorn's serious concerns about sprawl, and several others in the community who see this as an opportunity to do things right.

When this collective sentiment comes together with the Fargo culture of self-help and strong sense of community pride, conditions coalesce for large-scale empowered action. This spirit was exemplified in the Go2030 planning effort in 2009-2010 and we strongly believe will be resurrected with the Georgetown University Energy Prize effort.

II. PLANNING SO FAR : Go2030

In September 2009, the City of Fargo received \$948,900 in an Energy Efficiency and Conservation Block Grant from the U. S. Department of Energy. Excluding time and support provided by City staff and community members, the City invested \$250,000 of its grant funding in formulating a comprehensive plan called the Go2030 plan. Go2030 was a massive, open and inclusive effort to direct the city's unprecedented growth toward a worthy and sustainable future. The City used the balance of its DoE funding for several efficiency initiatives including LED lighting at the Solid Waste Department and downtown area, an energy audit for the Fargo Civic Center, asphalt recycling and other initiatives.

To guide Go2030 the City convened stakeholders from which two leadership teams emerged: a Steering Committee composed of community members and a Technical Committee composed of City staff and representatives from local utilities and universities. With wide-ranging community support^{vii} and oversight from the Steering and Technical Committees, the City hired Kansas City-based master planning consultants Berkebile Nelson Immenschuh McDowell, Inc. (BNIM).

Following several months of initial planning and research, the Go2030 website, including informational and interactive modules about the comprehensive plan, went live in May 2010. Concurrently, the City sponsored educational events on long-term planning issues and concepts, and offered a speaker series featuring expert-led public presentations and discussions informing citizens on various aspects of a sustainable future. An additional series of workshops, meetings and mind mixers provided opportunities for citizens to generate ideas and actively participate in discussions and planning. Attendance at the speaker series and planning meetings was strong and the website garnered extraordinary interest: during the open commenting period, 8,640 visitors generated 61,159 page views, 467 original ideas, and 2,110 comments.^{viii} Eventually, the community voted through participation for major guiding principles and key initiatives, which eventually became part of the Go2030 plan.

The City of Fargo, via a City Commission vote, formalized the Go2030 plan as policy on May 24, 2012. Following the acceptance of Go2030 as City policy, work began on an implementation workbook.

Participation in the various phases of the Georgetown University Energy Prize will create and strongly incentivize the implementation of the highest-impact ideas for energy efficiency from Go2030. This implementation will catalyze other aspects ideas for responsible growth contained in the comprehensive plan.

Note: Summary of Go2030 guiding principles and key initiatives attached as Appendix 1. Complete version of Go2030 available and can be sent via email upon request.

III. CURRENT STATUS BASED ON ANALYSIS TOOLS

Using the *ACEEE Local Energy Efficiency Self-Scoring Tool*^{ix} and the NREL guidelines for *Community Greening: How to Develop a Strategic Energy Plan*,^x it is evident that the Go2023 plan has enabled Fargo to make headway in policy creation and adoption with strong and diverse community participation. It is also evident that all policy areas outlined in the *ACEEE Self-Scoring Tool* have tremendous room for improvement and action. The baseline must be established, specific goals must be set, numerically-based measurable policies must be adopted, and implementation schedules must be enacted. While broad policy directions have already been established and implementation is ongoing, efforts to date are in the form of one-time initiatives rather than a concerted effort to fund and implement long-term, goal-based, incentive-rich policies.

1. *ACEEE Local Energy Efficiency Self-Scoring Tool*

Our team analyzed the first three of five areas in the *ACEEE Self-Scoring Tool* (Local Government Operations, Community-wide Initiatives, and Building Policies). The other two areas (Utility Policies and Transportation Policies) are undergoing continuing analysis. Our analysis (summarized below) shows that the Community-wide Initiatives are the best performing, Local Government Operations are the poorest performing, and Building Policies have the most room for improvement:

A. Community-wide Initiatives (best performing). Following are the suggested areas of improvement and other actions possible for a more involved and better informed community:

- a. Annual public reporting
- b. Public education
- c. Access to information
- d. Develop incentive-based group action concepts

B. Local Government Operations (poorest performing). Following are the suggested areas of improvement and action:

- a. Performance Management & Reporting
- b. Building Benchmarking
- c. Comprehensive Energy Management Strategy
 - Local government energy efficiency targets
 - Progress towards efficiency goals
 - Third party EM&V
 - Departmental/Staff incentives
 - Fleet Efficiency and vehicle infrastructure
 - Above code requirements for municipal buildings
 - Comprehensive retrofit strategy
 - Fix-it-first or life cycle cost policy

C. Building Policies (most room for improvement). Following are the suggested areas of improvement and action:

- a. Improve access to energy usage information
- b. Upfront code support
- c. Energy audit requirements
- d. Commercial benchmarking and disclosure policies
- e. Residential benchmarking and disclosure policies

2. Go2030 ACCOMPLISHMENTS SO FAR

The City of Fargo through the Go2030 accomplished the following goals so far. These are structured here based on the *NREL Community Greening* guidelines (guidelines were not a part of the original Go2030 process):

- A. Stakeholders identified and convened
- B. Leadership committees formed: Steering Committee and Technical Committee
- C. Public education accomplished through the speaker series, mind mixers and website
- D. Comprehensive Plan for future growth developed
- E. The following nine areas or guiding principles (Appendix 1) were identified as important to the comprehensive development of the worthy city of the future.
 - a. Water and Environment
 - b. Energy
 - c. Transportation
 - d. Health
 - e. Neighborhoods, Infill and New Development
 - f. Economy
 - g. Education
 - h. Safety
 - i. Arts & Culture
- F. Implementation plan development process initiated in the form of a workbook (draft version of workbook available and can be sent to GUEP team upon request).

IV. (STAGE 2) QUARTER FINAL PROCESS :

1. AUGUST 2014 (2 weeks) : RE-CONVENE

Actions:

A. Invite feedback from Georgetown University Energy Prize Team (GUEP). Incorporate feedback into the planning process.

B. Re-convene GO2030 Steering and Technical Committees with new and past community members and stakeholders.

C. The committees will identify an implementation leadership core team with at least one member from the following constituencies:

- a. Champion(s)
- b. Project Lead
- c. Government Lead (City Council / Mayor's office (decision-making representative)
- d. Knowledge expert(s) : Planning / energy efficiency / community history
- e. Representative(s) of Utilities
- f. Representative(s) of community, business and industry
- g. Representative(s) of Non-governmental organization
- h. Resident(s)

This team will be aided by the expertise made available from the GUEP competition. Project and Government Leads will be the liaison for the GUEP team.

D. Shortlist top implementation opportunities that will have greatest impact on the energy efficiency of the City from the nine guiding principles contained in the Go2030 plan and the key initiatives that had top ranking based on online community voting through participation process within the guiding principles. Following are the nine guiding principles and the top-ranking key initiatives within each principle:

a. Water and Environment:

- i. Permanent Flood Risk Reduction
- ii. Tree Canopy
- iii. Parks, Open Space and Habitat

b. Energy

- i. Promote Community-wide energy-efficiency and energy production
- ii. City led energy efficiency and reduced emissions
- iii. City wide smart grid

c. Transportation

- i. Bicycle/pedestrian infrastructure
- ii. Complete streets plan

d. Health

- i. City wide trail loop
- ii. Year-round recreational opportunities in a cold climate

e. Neighborhoods, Infill and New Development

- i. Promote Infill
- ii. Design Standards
- iii. Quality new development

f. Economy

- i. Amenities and Beautification as an Economic development tool
- ii. Entrepreneurship
- iii. Promote connections and infill within strip commercial developments

g. Education

- i. Safe routes to school
- ii. Retention of neighborhood schools
- iii. NDSU campus growth
- iv. Improved continuity between NDSU Main and downtown campuses
- v. Support the research and technical park

h. Safety

- i. Disaster and emergency preparedness
- ii. Crime prevention and fire safety

I. Arts & Culture

- i. Public Art
- ii. Public gathering spaces

Outcomes:

- A. Formation of Leadership Core Team.
- B. Shortlist of energy-efficiency related initiatives from Go2030.

2. AUGUST & SEPTEMBER 2014 (4 weeks): INTEGRATE

Actions:

- A. Leadership core team will review feedback from GUEP team and incorporate suggestions and expertise provided into the outlined process.
- B. Complete ACEEE self scoring tool analysis & research case studies.

- a. Case studies: Study policy- and incentive-based efforts by other communities.
 - b. Complete ACEEE Self Scoring analysis for a complete set of categorized recommendations.
- C. Integrate Go2030 energy-related initiatives shortlist with ACEEE self scoring tool and case study findings to create a revised implementation shortlist.
- D. Utilize the NREL Community Greening guidelines to structure the Go2030 initiatives and ACEEE feedback into a timeline-based structure for implementation.
- E. Identify wide variety of possible funding sources.
- a. City Incentive concepts and resources
 - b. State-based incentive & grant resources
 - c. Partnerships with non-governmental organizations, institutions and corporations
 - d. Federal grant funding resources
 - e. Recommendations from GUEP team for funding
 - f. Creative community funding campaigns

Outcomes: Leadership team will have the following in place by mid-September 2014:

- A. Completed case studies
- B. Completed ACEEE self scoring tool
- C. Integrated shortlist of energy efficiency initiatives
- D. Potential funding resources

3. SEPTEMBER & OCTOBER 2014 (4 weeks): IDEATE

Actions:

- A. Develop energy baseline for the integrated shortlist.
 - a. Edit integrated shortlist based on the ability to measure current baseline of energy use.
 - b. Acquire data with partner utilities and establish baseline for the edited-integrated shortlist.
- B. Develop energy goals for the edited-integrated shortlist based on available analysis tools and expertise.
 - a. Outline improvement projections and performance goals over the semi-final period of the competition (2015).
 - b. Outline long term benefit projections and performance goals beyond the period of the competition (up to 2030 based upon Go2030).

- C. Develop ideas for catalyst projects that incorporate all the edited-integrated shortlist goals.
- D. Develop ideas for creative community participation in the catalyst projects.
- E. Develop Implementation plan and timeline based on the following:
 - a. Short term one year competition schedule for the year 2015 based on Georgetown University Energy Prize Competition schedule.
 - b. Long term schedule up to the year 2030 based on the Go2030 comprehensive plan.
- F. Develop ideas for creative funding strategies and incentives to invite participation.
- G. With the guidance of the GUEP team, identify and collaborate with other cities of similar size.

Outcomes: Leadership team will have the following in place by the end of October 2014:

- A. Catalyst project ideas with ideas for integrated community participation
- B. Energy baselines and goals
- C. Implementation plan with timelines
- D. Funding ideas
- E. Collaborations

4. OCTOBER 2014 (2 weeks) : FEEDBACK

Actions: Leadership core team to present the outcomes of the process section to the City leaders, steering committee, technical committee and GUEP experts for feedback.

- A. Present the integration of the completed ACEEE analysis, NREL planning process and case studies with the Go2030 initiatives.
- B. Present ideas for catalyst projects, energy baselines, energy goals, short term implementation process for 2015 competition duration and long term schedule up to the year 2030.
- C. Present community participation ideas and process for the year 2015 for the duration of the competition.
- D. Present three categories of funding ideas:
 - a. Local, regional and national grant-based funding sources
 - b. GUEP seed grants and other grants
 - c. Incentive-based creative community participation and funding ideas

E. Invite structured feedback so that it can be quickly and usefully integrated into an action and implementation plan.

Outcomes:

A. Feedback on catalyst projects, baselines, goals, schedules and funding ideas.

5. NOVEMBER 2014 (4 weeks) : COMPILE

Actions: Incorporate feedback from GUEP core team and local leaders and committees into the final plan for the semi-final process.

A. Edit list of catalyst projects based on feasibility of implementation and measurement within the 2015 competition semi-final phase.

B. Further edit list of catalyst projects based on largest long term impact up to the year 2030 to fulfill the Go2030 vision.

C. Incorporate the best suited community incentives and participation ideas into the final catalyst project(s).

D. Target funding opportunities most suitable for the final catalyst project(s).

E. Compile time-based plan for implementing and funding catalyst project(s) and community participation for semi-final stage.

F. Establish and formalize criteria, schedule and process of performance measurements in partnership with GUEP team and local Utility companies.

G. Formulate plan for making performance information accessible and visible to the people of Fargo in partnership with GUEP team.

Outcomes:

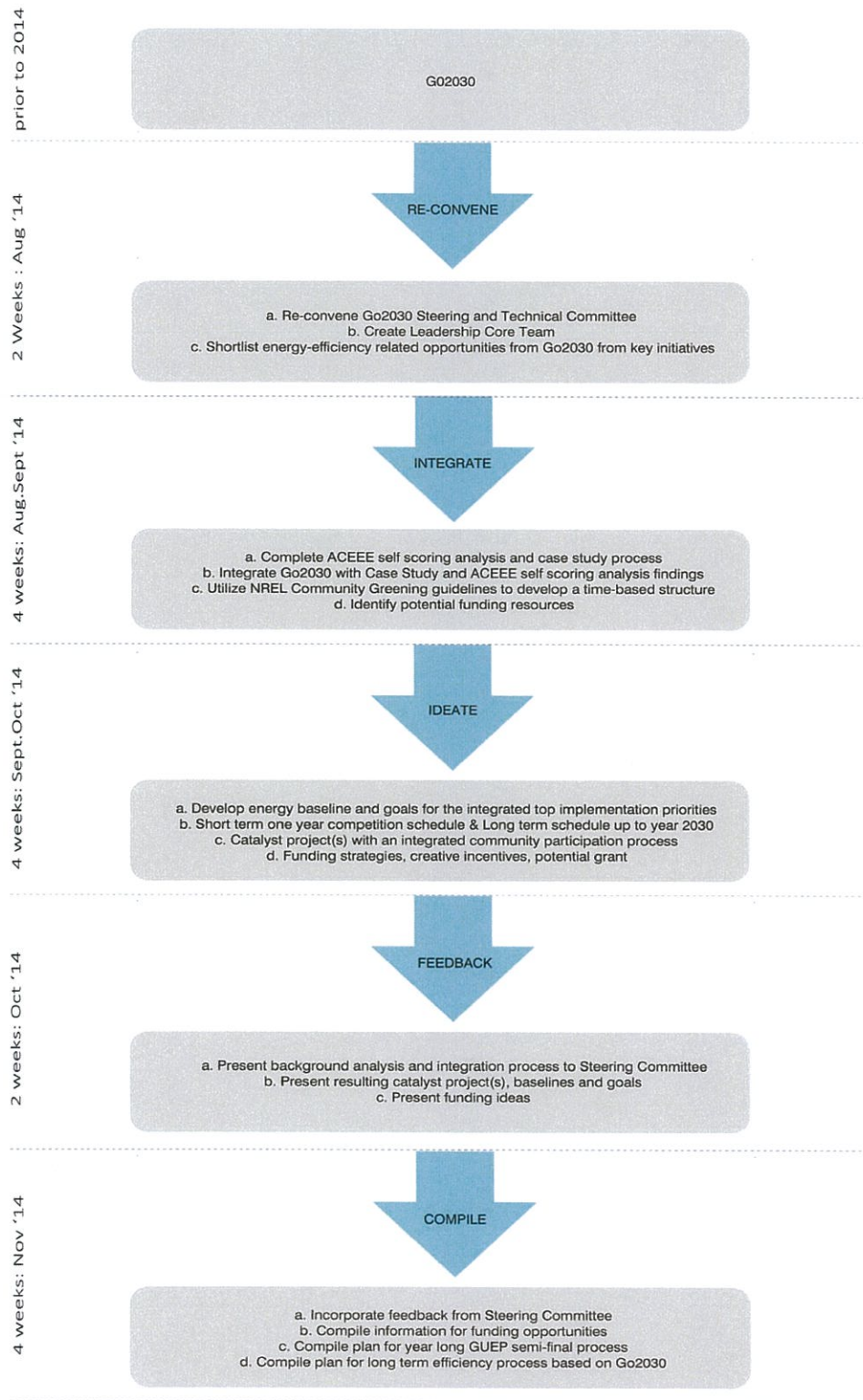
A. Presentation and documentation of plan for the semi-final stage of the competition over the course of year 2015.

B. Presentation and documentation of plan up to year 2030 for the catalyst project(s).

C. Funding applications and actions.

D. Specifics of short term and long term energy-efficiency related plan for the City.

V. (STAGE 2) QUARTER FINAL PROCESS DIAGRAM:



VI. ENDNOTES

ⁱ North Dakota State Profile and Energy Estimates, 2013 ; U S Energy Information Administration. <http://www.eia.gov/state/?sid=ND>

ⁱⁱ Rankings: Total Energy Consumed Per Capita, 2011; U S Energy Information Administration. <http://www.eia.gov/state/rankings/?sid=US>

ⁱⁱⁱ The State Energy Efficiency Scorecard, 2013 ; American Council for an Energy-Efficient Economy. <http://www.aceee.org/state-policy/scorecard>

^{iv} North Dakota Production of Crude Oil, 2013 ; U S Energy Information Administration. <http://www.eia.gov/dnav/pet/hist/LeafHandler.ashx?n=pet&s=mcrfpnd1&f=a>

^v "New Leaders mull direction of Fargo's rapid growth" by Dave Kolpack, Associated Press. http://bismarcktribune.com/news/state-and-regional/new-leaders-mull-direction-of-fargo-s-rapid-growth/article_5600fd36-f3f6-11e3-a204-0019bb2963f4.html

^{vi} "Fargo reinvents itself as a magnet for creative types and entrepreneurs" by Jennifer Brooks, Star Tribune. <http://www.startribune.com/local/261393961.html#Gj0oLLAridRCVzmq.97>

^{vii} This is a summarized listing of the community members actively participating in GO 2030. The open voting garnered even wider support from the citizenry.

- Residents of Fargo and the area (not an organization but #1 of course)
- City of Fargo, Fargo Park and School districts
- North Dakota State University and NDSU Extension Service
- ND State agencies (Transportation, Commerce etc.)
- Media partners (Radio, television, newspapers and local publications)
- Federal partners (US DOES, SBA, HUD, National Guard etc.)
- Utility partners
- Metropolitan Council of Governments
- Nonprofit/community organizations (several)
- Homebuilders Association of FM
- Youth groups (several)
- Senior care facilities (several)
- Architects (several)
- Engineers (several)
- Development groups (several)
- Hospitals (several)
- Landlords and property managers (several)
- Faith communities (several)
- Neighborhood associations (several)
- Art organizations (several)
- Area business (several)

^{viii} GO 2030 Fargo Comprehensive Plan, May 24, 2012.

^{ix} Local Energy Efficiency Self-Scoring Tool, Version 1.0 Beta, Authors David Rebeiro and Eric Mackres. <http://www.aceee.org/research-report/e13/>

^x U. S. Department of Energy EERE, Community Greening: How to Develop a Strategic Energy Plan. http://www.nrel.gov/tech_deployment/pdfs/community_greening.pdf

APPENDIX 1

Fargo Comprehensive Plan : Go2030 : Summary of Guiding Principles & Key Initiatives

GUIDING PRINCIPLES



WATER AND ENVIRONMENT

Fargo will create permanent flood protection and ensure the quality and supply of this precious resource through water conservation. We will celebrate water by embracing the Red River of the North and the Sheyenne River and integrating sustainable rainwater management techniques into the fabric of the city. We will protect our natural resources and preserve the health and beauty of our environment.



ENERGY

Fargo will aggressively seek innovative strategies to support national energy independence. The community will find energy savings through efficiency measures and invest in renewable sources for the future.



ARTS AND CULTURE

Fargo will flourish with a stronger arts and culture movement. We will nurture and increase the presence of both the performing arts and the visual arts, and we will increase access to cultural events and arts-related educational opportunities.



HEALTH

Fargo will encourage healthy choices and improve the health of residents by enhancing awareness, increasing year-round recreational opportunities, increasing access to healthy food, and ensuring access to quality healthcare.



TRANSPORTATION

Fargo will transform its transportation system to encourage walking, biking, and transit. The City will coordinate infrastructure investments and land use policy in a supportive and synergistic way.



ECONOMY

Fargo will build on its agricultural and manufacturing heritage and will be known as a cutting-edge creative economy. We will educate and retain the best workforce in the nation and foster an innovative and entrepreneurial environment.



NEIGHBORHOODS, INFILL, AND NEW DEVELOPMENT

Fargo will promote attractive and welcoming neighborhoods by promoting a diverse and affordable housing stock. Fargo will support neighborhoods where residents can age in place, children can walk to school, and essential services are only a short walk away. Fargo will promote infill development, planned growth, and increasing density and vitality in its established neighborhoods.



EDUCATION

Fargo will uphold and improve its world class K-12 education system. Fargo will continue to embrace the universities and post secondary education institutions and acknowledge their positive influence on the economy, workforce, and culture of Fargo.



SAFETY

Fargo will ensure safety through excellent police and fire service. The design of neighborhoods, districts, and public spaces will work to promote safety by increasing visibility and eyes on the street.

KEY INITIATIVES



WATER AND ENVIRONMENT



Permanent Flood Risk Reduction

Develop internal flood protection systems to a river stage of 42.5 feet using permanent levees and flood walls. Use the internal flood protection systems along with construction of a diversion channel to create 500 year flood risk reduction.



Watershed Management

Develop a strategy for regional watershed flood management simultaneously with the diversion project.



Tree Canopy

Increase the amount of trees in Fargo by preserving and planting new trees in new developments, planting trees in parks, and increasing the number of street trees along Fargo's main corridors.



Drinking Water Quality & Supply

Ensure safe drinking water quality and supply by studying water quality impacts of Devil's Lake overflow on the Sheyenne River, ensuring the health of the Red River, and preparing for long-term emergency water supplies in times of drought.



Parks, Open Space, and Habitat

Ensure all neighborhoods have access to safe and well-maintained neighborhood parks. Enhance parks with more trees and amenities. Protect open space habitat areas and create nature centers and living laboratories to educate residents about nature.



Light Pollution

Develop strategies to reduce light pollution and maintain the beauty of the night sky. Examples could include energy efficient full cut off light fixtures on city streets.



Waste and Recycling

Develop policies to reduce waste and increase recycling programs. Explore food waste composting systems.



Water Conservation

Develop policies and programs to reduce water usage in the City of Fargo. For example, the City could expand its wastewater reclamation and reuse system for drinking, irrigation, and industrial users. The City could use native/xeric plants to reduce need for irrigation.



Green Stormwater Infrastructure

Incorporate natural stormwater management and flood control areas that provide recreational opportunities into the City. Examples include on-street rain gardens that soak up and clean stormwater runoff before it enters the storm sewers and retention areas.



Air Quality

Create strategies to ensure the quality and healthfulness of our air. Promote reduced emissions from transportation, energy production, industry, and all sectors of our city.



ENERGY



Community-Wide Energy Efficiency and Renewable Energy Production

Create strategies to incentivize energy efficiency and renewable energy production by working with City, State, and Federal governments.



Smart Grid

Develop strategies to promote a smart grid and work with local utilities to educate residents on the value of smart grid technology and renewable energy generation.



City Led Energy Efficiency and Reduced Emissions

Develop policies and strategies that allow the city to lead the way with energy efficiency standards and reduction of emissions from city facilities and schools.



ARTS AND CULTURE



Public Art

Incorporate public art into the public realm of the city.



Art Classes, Cultural Programs, and Arts Organizations

Develop strategies to increase access to and support for art classes and cultural programs.



Public Gathering Spaces

Develop dedicated public gathering spaces and public spaces in neighborhood centers. Promote programming of public spaces with festivals and other cultural events.



Establish an Arts Commission

Establish an Arts Commission to support integration of art into the public process and to increase aesthetic consideration within the public realm.



Festivals and Cultural Events

Develop space and programming for festivals and events.



HEALTH



City-Wide Trail Loop

Connect the city with a greenway that is made up of primarily off street trails.



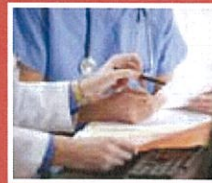
Healthy Food

Ensure all neighborhoods have access to healthy food. Promote more farmers' markets and community gardens in Fargo.



Year-round Recreational Opportunities

Increase year-round recreational opportunities within the city.



Access to Healthcare

Fargo will ensure all residents have access to quality healthcare.



Regional Recreational Amenity

Develop a regional recreational destination, such as a water park, indoor athletic center, conservatory, or an expanded zoo.



TRANSPORTATION



Bicycle/Pedestrian Infrastructure

Improve bicycle and pedestrian connectivity by identification of gaps in the local and to the regional system.



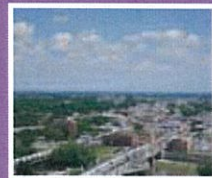
Complete Streets

Transform Fargo's roadways with a connected network of complete streets. Implement study recommendations to convert one way streets in downtown Fargo to two way streets.



Transit Improvements

Expand and improve the existing transit service in terms of frequency, mode, and other options, including an effort to revise both the existing MAT bus schedule and frequency of bus service throughout the city and the region (Moorhead and West Fargo). Study the possibility of new local and regional travel venues, such as bus rapid transit and rideshare programs.



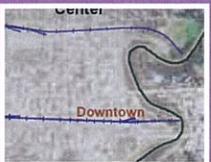
Transportation Linkages Across the Red River

Improve mobility in a manner that will accommodate growth and secure availability of emergency routes by developing an additional crossing of the Red River south of 52nd Ave, and improve availability of and access to river crossings for bicycles and pedestrians.



Intelligent Transportation System

Increase the use of Intelligent Transportation System (ITS) technology to improve efficiency and safety throughout the transportation system



Clear and Attractive Access to Downtown

Improve wayfinding signage for all modes of transportation. Enhance vehicular downtown connectivity from the north, south, and west, and simplify access from I-29 and I-94.



Parking

Pursue creative parking strategies to fund and activate parking structures, explore reducing minimum parking standards, and share parking between daytime and nighttime uses.



ECONOMY



Amenities and Beautification as an Economic Development Tool

Invest in amenities and beautification as an economic development tool to attract creative individuals. For example, improve the streetscape and walkability of Fargo's main corridors.



Workforce Training

Promote workforce training at the local universities and colleges.



Entrepreneurship

Create an environment of entrepreneurship through business support and public awareness campaigns.



Technology Infrastructure

Create strategies to increase the quality of Fargo's communication infrastructure. This infrastructure will give Fargo a competitive advantage for technology related businesses to locate in Fargo.



Promote Connections and Infill within Strip Commercial Developments

Promote redevelopment of strip commercial areas to increase the amount of retail space, density, and promote walkability to increase competitiveness of these shopping destinations.



Attract and Retain Businesses and Qualified Workforce

Provide incentives for developing specialized space where both the demand and public benefit are substantially demonstrated. For example, there may be a need for more "wet" laboratory space to strengthen the bioscience industry and provide more jobs.



NEIGHBORHOODS, INFILL, AND NEW DEVELOPMENT



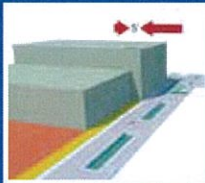
Promote Infill

Develop policies to promote infill and density within areas that are already developed and are protected by a flood resiliency strategy. Control sprawl and focus on areas outside of the floodplain.



Historical Preservation

Strengthen historical preservation incentives.



Design Standards

Develop a Commercial Design Zone District and continue to follow the Design Guidelines for Growth Areas of the City of Fargo (May 2003) for infill and new residential development. Improve quality of new housing by fostering strong relationships with the development and building community to promote dense, walkable communities with neighborhood centers.



High Quality Affordable Housing near NDSU

Develop higher quality affordable housing near the North Dakota State University campus.



Quality New Development

Support homebuilders and developers that construct high quality, energy efficient buildings, and require new development to meet site design standards that result in well-designed new neighborhoods.




Housing for workforce and low income residents

Pursue strategies to increase access to housing for workforce and low income residents.



Neighborhood Support and Communication

Improve communication between the City and established neighborhoods. Encourage neighborhoods to establish a vision and create neighborhood plans.

 EDUCATION



Safe Routes to School

Fargo will work with local school officials, neighborhood leaders, parents, and children to develop policies and programs that advocate for the safe walking and bicycling to and from schools, and in daily life, to promote a healthy lifestyle of children and their families.



Improved Continuity Between NDSU Main and Downtown Campuses

Fargo will work with NDSU to improve continuity between NDSU main and downtown campuses in terms of urban design and services, such as improved transit.



Retention of Neighborhood Schools

A serious issue facing our core neighborhoods is declining enrollment at its local schools. Once the doors are shuttered, the neighborhood not only loses a school but it loses its sense of community. Fargo will focus on retaining these important neighborhood assets.



Support the Research and Technical Park

NDSU is a top research institution with annual research expenditures exceeding \$110 million. The university has several programs ranked in the Top 100 by the National Science Foundation. Recently, the Carnegie Commission on Higher Education named NDSU to the elite "Research University/Very High Research category, a designation that represents the 108 most successful private and public universities in the country."



Growth of NDSU Campus

Fargo will continue to foster the strong relationship with NDSU and their commitment to expansion in Downtown Fargo.

 SAFETY



Crime Prevention and Fire Safety

Maintaining public safety is incredibly important to assessing the status of a community's "quality of life". Fargo is committed to ensuring public safety by continuing to provide its residents with excellent police and fire services and by fostering strong partnerships between the public, nonprofit organizations, businesses, and other agencies.



Disaster and Emergency Preparedness

Fargo will update its disaster and emergency response procedures as needed to ensure that the city is as prepared as practical to protect its citizens, property and critical assets against natural and other disasters or catastrophes thus ensuring continuity of the services, facilities, and programs.

Document 4: Description of Fargo Community

Fargo is a growing, dynamic city. The metro, which includes West Fargo, Moorhead, and Dilworth, is surrounded by some of the planet's most fertile farmland, and the community is just as nurturing for the individuals, families, and businesses that thrive here. Founded in 1891, the City of Fargo now covers 48.82 sq. mi. There is a growing, aging, and increasingly diverse population, which surpassed 105,500 people in 2010. Population projections for 2030 hover around 135,000. The metro population was 223,490 in 2013 with a median age of 31.7. These population changes provide opportunities for the city to incorporate innovative solutions as demands for housing, schooling, and employment rise.

Fargo's economy proved resilient through the economic downturn. The city's average unemployment rate was only 3.4% in 2011. The median income across the metro was \$49,811 in 2010. The strength of our economy is only elevated by the increasing diversity of industries, led by companies such as Sanford Health, Blue Cross Blue Shield, Case New Holland, US Bank, Microsoft, and John Deere Electronic Solutions. Local school systems and universities are among the leading employers throughout the metro. Health, education, technology, finance, and manufacturing sectors balance our economy and ensure long-term stability.

Downtown Fargo is an example of the strength of our community in being an enduring urban core that is leading revitalization efforts and setting a standard for future construction across the metro. The Renaissance Zone encompasses the downtown area as well as older neighborhoods and aims to promote future building and reconstructing projects to protect the history of the city. There is a thriving entrepreneurship community fueled by the city's excitement for and support of new ventures. There are many incentives to expand or create businesses, including seed and venture capital and tax advantages. Local and state governments are committed to growth and innovation and are proving it through their financial support.

The high quality of life in Fargo draws countless individuals to the area and the strong community helps them plant their roots. Families find it as a great place to raise children with low overall and violent crime rates, good schools, accessible employment with short commutes, clean air and water, tight-knit neighborhoods, strong values, and sense of community. There is an extensive healthcare network with world-class medical professionals.

There are plenty of activities for every season and interest. The Fargo Parks District maintains 2,100 acres of land for parks, golf courses, bike trails, and softball, baseball, tennis, and swimming facilities. There is also an energetic arts culture supporting both traditional and eclectic art forms. Museums, some to display high art and others appealing to children's curiosity; live music; theatrical performances, performed by children all the way to professionals; symphony concerts; and dance recitals are all options for the artistically interested. Other attractions include bowling alleys, theatres, curling clubs, river activities, local athletic teams like Redhawks baseball, and the Red River Zoo.

Being a highly educated community, with more than 70% of people having more than just a high school diploma, education quality is important to our community. There are superb public and private options for primary education, including parochial, Montessori, and alternative community school options. Students consistently surpass the national averages of ACT and SAT scores, proving the excellence of our education system. There are also many higher education opportunities. Fargo is home to North Dakota State University, a Division I athletics and leading

Document 4: Description of Fargo Community

research institution. The metro area boasts four additional colleges and universities ranging from a four year, private, liberal arts college to a two-year, associates, community and technical school. The nearly 30,000 college students feed our vibrant community new ideas and thoughts. Paired with the excellence of established industries, there is much hope for the future of Fargo.

GEORGETOWN UNIVERSITY
ENERGY PRIZE

LETTER OF SUPPORT
MUNICIPAL OFFICIAL

Mike Williams (name of "Municipal Official"), through this letter of commitment, express my support of Fargo's (name of "Community") effort to compete in the Georgetown University Energy Prize ("GUEP").

I will, to the extent possible, support other municipal officials and staff, work with stakeholders, speak to the public and the press, and otherwise engage our residents in energy savings efforts.

I understand that, if our community receives a monetary award from the GUEP, The city of Fargo (name of "Entity") will be the recipient of the funds and will be required to use those funds to the benefit of the whole community, as described in the Competition Guidelines.

Mike Williams (date) 6-25-14
By: (date)

Mike Williams (Name of Official) City Commissioner (Title)
City of Fargo (Organization)
200 3rd St N, F (Street Address)
Fargo, ND 58102 (City, State Zipcode)

GEORGETOWN UNIVERSITY
ENERGY PRIZE

LETTER OF SUPPORT
UTILITY

Xcel Energy (name of "Utility"), through this letter of commitment, expresses its support of Fargo's (name of "Community") effort to compete in the Georgetown University Energy Prize ("GUEP") and its commitment to provide timely, accurate, energy data as required by the Competition Guidelines (see guelp.georgetown.edu/rules-timeline).

Utility provides the following energy services to the below types of customers within the Community (check all that apply):

- Electric Residential Customers
 Natural Gas Municipal Customers

Utility will support Community's GUEP effort by providing the Georgetown University Energy Prize, quarterly, with the total (aggregate) monthly energy directly supplied by natural gas and electric utilities to all of their residential and municipal customers in the community, as well as the current number of residential accounts. Aggregate data will be reported separately for the residential and municipal sectors. Using the optional Attachment A, Utility may describe their prospective data collection capabilities and provide feedback to GUEP.

Utility will work with Community to comply with all current and future energy data requirements in the Competition Guidelines. Georgetown University will continue working with our partners and with interested communities to ensure that data requirements are as simple as possible, however, it is ultimately the Community and the Utility's responsibility to ensure that data is supplied.

Utility understands that Georgetown University will use the energy to: (1) administer the GUEP Competition and select the Finalists in accordance with the Competition Guidelines; (2) educate the public through our Competition Dashboard, as well as other media outlets; (3) conduct research directly and in conjunction with collaborating organizations; and (4) conduct all other activities consistent with the Master Team Agreement signed by Community during Phase 1 and Phase 2 of the Competition.

Utility may provide additional support for the Community's GUEP effort, consistent with the Community's Energy Efficiency Program Plan, submitted in Phase 2 of the Competition.

By: Mark Nisbet (Name of Representative) 6-25-2014 (date) ND Principal Mgr. (Title)
Xcel Energy (Organization)
PO BOX 2747 (Street Address)
Fargo ND 58108 (City, State Zipcode)



Cass County Electric Cooperative

Your Touchstone Energy® Partner 

June 24, 2014

Commissioner Mike Williams
City of Fargo
200 3rd St N
Fargo, ND 58102

Re: Georgetown University Energy Competition

Dear Mike,

I'm writing to confirm Cass County Electric Cooperative's interest in being a volunteer team member in pursuit of the Georgetown University Energy Competition. I will serve as the primary liaison for now, with our Vice President of Member and Energy Services Marshal Albright as backup.

We look forward to working with the City and the team members to achieve this award. Please let us know as soon as possible when the initial meetings will take place.

Sincerely,



Scott W. Handy, President/CEO

Cc: Marshal Albright, Cass County Electric Cooperative



Mark R. Nisbet
Principal Manager
North Dakota

P. O. Box 2747
Fargo, North Dakota 58108

June 24, 2014

Dan Mahli
Community Development Administrator
City of Fargo
200 3rd St North
Fargo, ND 58102

Dear Dan,

I accept your invitation to join as a team member in the Georgetown University Energy Competition. I am looking forward to working as a team volunteer for the Fargo application.

I understand and accept that the competition is over a two (2) year period and team members will be meeting quarterly for 90 minutes.

I look forward to working with the team.

Sincerely,

A handwritten signature in black ink, appearing to read 'Mark Nisbet', written over the word 'Sincerely,'.

Mark Nisbet
ND Principal Manager



June 26, 2014

Dan Mahli, City Planner
401 3rd Avenue North
Fargo, ND 58102

Re: Georgetown University Energy Prize Competition

Dan:

I'm delighted to have been asked to participate as team member for the City of Fargo.

For more than 31 years my firm's primary focus has been on the renovation of existing buildings, which is both good for energy conservation and resource management. I was a member of the Fargo City Commission for six years and am currently a sitting member of the Fargo Historic Preservation Commission. While on the planning commission I was a core contributor to the city's growth management planning process.

I look forward to serve on this committee.

Thank you.

Sincerely,

MICHAEL J. BURNS ARCHITECTS, LTD.

A handwritten signature in black ink, appearing to read "Michael J. Burns". The signature is fluid and cursive, with a long horizontal stroke at the end.

Michael J. Burns, AIA, CID

Principal

2878 Lilac Lane N
Fargo, ND 58102

824 Center Avenue
Moorhead, MN 56560

667 Demers Avenue
Grand Forks, ND 58201



Fargo Water Treatment Plant
435 14th Avenue South
Fargo, North Dakota 58103
Phone (701) 241-1469
FAX (701) 241-8110

Mr. Dan Mahli
Community Development Administrator
City of Fargo
200 3rd Street North
Fargo, ND 58102

RE: **Georgetown University Energy Competition**
Fargo Public Utilities - Team Member Participation

Dear Mr. Mahli,

Please accept this letter as formal notification of team member participation for the Fargo Public Utility departments in the above referenced energy competition. As you may be aware, Fargo's utility departments have been involved with energy conservation and renewable energy utilization for more than a decade. Fargo's utility departments include the Water Utility, Wastewater Utility and Solid Waste Utility. We are excited to be a member of Fargo's team in this competition and look forward to working with you and the other volunteer members.

Your consideration in this matter is greatly appreciated.

Sincerely,

A handwritten signature in blue ink that reads "Bruce P. Grubb".

Bruce P. Grubb
Enterprise Director

C: Terry Ludlum, Solid Waste Utility Director
James Hausauer, Wastewater Utility Director
Troy Hall, Water Utility Director

June 27, 2014

To,

Dan Mahli
Community Development Administrator
Planning and Development Department
200 3rd Street North, Fargo
ND 58102

Dear Mr Mahli,

Design and Energy Laboratory is very pleased to support the City of Fargo's entry to the Georgetown University Energy Prize Competition. We believe that this is a very timely pursuit for the City and are prepared to offer our participation and assistance to the team.

With Best Regards,



Mike Christenson, AIA, NCARB
Design and Energy Laboratory, LLC ("DandElab")
363 7th Ave S, Fargo ND 58103
612.209.7745
mike@dandelab.com



Malini Srivastava, AIA, CPHC
Design and Energy Laboratory, LLC ("DandElab")
363 7th Ave S, Fargo ND 58103
612.209.7745
malini@dandelab.com





KILBOURNE
GROUP

Kilbourne Group
210 Broadway, Suite 300
Fargo, ND 58102
p: (701) 237-2279
e: info@kilbournegroup.com
www.kilbournegroup.com

Dear Commissioner Williams and City Staff,

I am honored to be considered as team member for *Team Do*, which will be our operating team for the Georgetown University Energy Competition. Being a believer in healthy urban cores as a cornerstone for a healthy city, energy conservation as a block, neighborhood and city is tremendously important. Not only conservation, but exploration: how to source our energy differently, use our energy differently, think about energy differently.

I am very proud of our community and as an advocate feel the pull to always be exploring how our community can be better, more resourceful and more resilient.

I respectfully submit my desire to be part of the team.

Sincerely,

Tracy Walvatne

NDSU NORTH DAKOTA
STATE UNIVERSITY

June 26, 2014

Mr. Dan Mahli
City of Fargo
Community Development Administrator
Fargo, ND 58102

Dear Mr. Mahli:

Please be advised I, or someone from North Dakota State University, is willing to serve as a team member for the Georgetown University Energy Challenge.

Sincerely yours,



Kenneth Hellevang, Ph.D., PE
Extension Engineer, Professor



June 27, 2014

Dear Mr. Mahli:

I am pleased to serve as River Keepers representative on the team submitting the City of Fargo's application to the Georgetown University Energy Challenge. The competition fits within River Keepers mission to advocate sustainable use of the Red River of the North. We frequently work with local governmental units and businesses to educate and engage students and residents in best management practices.

Sincerely,

A handwritten signature in blue ink that reads "Christine Laney". The signature is written in a cursive, flowing style.

Christine Laney
Executive Director

Promoting a renewed vision for the Red River of the North.

1120 28th Ave. N., Ste. B, Fargo, ND 58102 • 701.235.2895 • www.riverkeepers.org