

EXHIBIT A

**Exhibit A**  
**Statement of Qualifications**

**Hala N. Ballouz, P.E.**  
**B.S. & M.Sc. EE, Texas A&M University**

**President, Electric Power Engineers, Inc.**  
**Partner and shareholder, International I.G.M. s.a.r.l.**  
**Vice President of the Texas Renewable Energy Association.**  
**Board Member Texas Renewable Energy Association**

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Hala Ballouz, the President and Owner of Electric Power Engineers, with multiple offices in the U.S. and internationally, is a lead consultant in the Electric Power Industry since 1991, specifically for renewable energy development. She has over 15 years of experience in transmission system analysis, substation and distribution system design, resource and grid feasibility studies, renewable energy development, distribution System planning and operations, and Design/Engineering/Procurement for wind and solar generation projects. She has extensive experience in renewable energy integration and design of wind, solar, biomass, as well as energy storage, with numerous significant publications in the power industry. An accomplished and published industry writer and presenter, Mrs. Ballouz backs her work with certifications in substation engineering and design as well as wind energy and wind turbines. She is a registered Professional Engineer in three States and is also registered with the Board of Engineers in Lebanon.

***Education:***

**M.Sc. in Electrical Engineering (Power),** Aug. 1991, Texas A&M University, College Station, Texas.  
**B.Sc. in Electrical Engineering,** Dec. 1989, Texas A & M University, College Station, Texas.  
National Dean's List

***Experience:***

***Over 19 years of power generation, transmission, and distribution experience***

***Transmission System Analysis using state-of-the-art analysis software, Renewable Energy Development from site assessment to shovel ready.***

***Feasibility Studies and Evaluation of Renewable Generation Projects.***

***Distribution System Planning and Operations.***

***Design/Engineering/Procurement for wind and solar generation projects. See Key Qualifications.***

**Jan 06-Present International Consultant**

**Specialized in Power and Renewable Energy Transmission Integration and Design**

- Soma 90 MW wind farm feasibility study, Turkey
- Ras El Khaimah long range plan for transmission grid expansion and supply/demand planning, UAE
- Ras El Khaimah wind integration, UAE
- Morocco Solar and Wind (Renewable Energy) Definitional Mission (USTDA)
- Kenya, Lamu and Lambwe renewable energy integration, Cordisons International.

- Jul 91-Present**    **Electric Power Engineers, Inc., Waco, TX.**  
 President and Owner (Nov 07 – Present)  
 Vice President & Shareholder (Dec 04- Oct 07)  
 Senior Electrical Engineer & Shareholder (Jan 99- Nov 04)  
 Vice President (Dec 92- Dec 98)  
 Graduate Engineer (Jul 91-Dec 92)
- Feb 06-Jun 06**    **American University of Science and Technology:**  
 Teaching CCE 444 "Power Transmission and Distribution". Also assemble the Syllabus and material for this new course.
- Jun 92**            **New York State Institute on Superconductivity- Buffalo, NY.**  
 SMES Utility Interest Group- Specialty Conference, 2nd Session  
 "Impact of SMES on Unit Availability and System Reliability", in collaboration with Dr. A.D. Patton / Texas A&M University.
- Jan 90-Aug 91**    **Texas A&M University, Electric Power Department, College Station, TX**  
 Research Assistant, on the large-scale applications of superconductors in power systems, with Dr. A.D. Patton.
- Nov 89**            **Texas A&M University – Electronics Material Laboratory, C.S., TX.**  
 Design and Construction of a High Temperature Superconductor Current Limiter.
- Jul 88-Dec 88**    **Bechtel Inc., Houston, TX.**  
 Assistant Engineer - internship. Experience included control engineering as well as plant power and electric design aspects (cable sizing, lighting, motor start etc.).

***Professional Memberships and Registrations:***

Professional Engineer, State of Texas (License #80999)  
 Professional Engineer State of Idaho (License #12315)  
 Professional Engineer State of Rhode Island (License #8696)  
 Texas Society of Professional Engineers  
 National Society of Professional Engineers.  
 Board of Engineers, Lebanon

The Wind Coalition , *member and representative in SPP*  
 Texas Renewable Energy Association (TREIA) *Board Member*  
 American Wind Energy Association (AWEA)  
 Institute of Electrical and Electronics Engineers (IEEE).  
 Power Society of IEEE

***Certifications:***

Certificate for "Wind Energy and Wind Turbines" WOnline course, with Dr. Vaughn Nelson, West Texas A&M University online, Fall 2003.  
 Certificate for "Substation Engineering and Design" Siemens Power Transmission & Distribution, Inc. Power Technologies International, Schenectady NY, December 2005.

***Papers and Presentations:***

- Nasr (Ballouz), Hala, and Patton, A.D., 1991. "Impact of Energy Storage on Generating Unit Availability and System Reliability", Paper and presentation, Conference *Proceedings of the Symposium on the Reliability of Electric Power Systems.*
- Ballouz, Hala, and Cousineau, Kevin, 2003. "Evaluation of Power Factor Correction in Wind Parks and the Savings from Reduction in Power Loss", Paper, *American Wind Energy Association Conference, Austin, Texas.*
- Ballouz, Hala, 2004. "The cost benefits applied to a Wind/Storage System from the Impact of Energy Storage on Generator Availability and System Reliability", Paper and presentation, *Global WINDPOWER 2004 Conference, Chicago, Illinois.*
- Ballouz, Hala, 2005, "The Effect of Dynamic Rating of Transmission Lines on the Export Capacity Available to Wind Farms that are Applying for Interconnection.", poster presentation,

- WINDPOWER 2005 Conference, Denver, Colorado.*
- Ballouz, Hala, 2006, “**Wind Farm Grid Interconnection Milestones—Do(s) and Don’t(s)**”, poster presentation, *WINDPOWER 2006 Conference, Pittsburgh, Pennsylvania*
  - Ballouz, Hala, 2007, “**Introduction to Engineering and Regulatory Requirements Including Interconnection, Transmission, and Access Issues**”, presentation, *Texas Renewables '07, Texas Renewable Energy Association, Abilene, Texas*
  - Ballouz, Hala, Carlos Matar, and Michael Edds, 2009, “**Distributed Wind Interconnection Challenges for Utility-Scale Wind Turbines**”, *WindPower 2009, American Wind Energy Association conferenc, Chicago, Illinois.*
  - Ballouz, Hala, 2009, “**Transmission Deliverability for Wind Developers**”, *Transmission Summit 2009, Sweetwater Texas.*
  - Ballouz, Hala, 2009, “**Distributed Wind Interconnection Challenges for Utility- Sxale Wind Turbines**”, *Wind Power 2009 Conference & Exhibition, Chicago Illinois.*
  - Ballouz, Hala, 2010, “**Wind and Solar Projects Interconnection Issues**”, *Transmission Summit 2010, Sweetwater Texas.*

### ***Key Qualifications:***

Vast Experience in Transmission System Analysis, **owner’s engineer** in development/ design/ engineering/ procurement of Renewable Projects, Distribution System Planning and Operations, as well as high end power system simulation software operation and programming.

Key player in the renewable energy industry serving as Board member and Vice President of the Texas Renewable Energy Association (TREIA), and representative of The Wind Coalition in the Southwest Power Pool (SPP).

International consultancy on Transmission Planning and Renewable Energy development, with recent project in Turkey, the United Arab Emirates, Morocco, Kenya, Jordan and Lebanon.

### **Transmission System Analysis:**

Transmission System Planning Studies – Significant experience (since 1994) in analyzing the feasibility of generation interconnection to the transmission grid, including power flow calculations, transmission and wheeling pricing and operational issues. Conducted all the calculations for analyzing the capacity and limitations of the electric transmission grid to distribute electric power generated by renewable resources within the state of Texas (for the Sustainable Energy Development Council of the State of Texas). Several years experience using the widely known power system analysis software PSS/E of PTI, as well as PowerWorld.

### **Design/Engineering/Procurement**

Substation and transmission interconnection one-line diagrams. Design of wind and solar generation plants medium and high voltage collection system. Protective relaying. Hold a certificate in substation design from Power Technologies, International.

### **Generation Interconnection**

Processing interconnection of generators with the transmission grid from the initial filing of the application process all the way through the negotiations for the interconnection agreement and negotiations with the transmission providers.

**Renewable Energy Development:**

Assisting developers of renewable generation, in particular wind, in the evaluation and development of generation resources since 1994. Vast expertise in evaluating projects and development efforts from site assessment to shovel ready. Completed *load flow modeling, grid interconnection, and/or design of wind generation projects* for over 50 clients, including leading companies like GE, Airtricity (, AES, BP, Gamesa, Pattern Energy (Babcock and Brown), etc. The following highlights some of the expertise in renewable energy development.

- All phases and milestones of renewable energy development, from site assessment to shovel ready.
- Several years experience in *load flow* calculations and modeling of the electric transmission grid using the transmission program PSS/E of PTL/Siemens, as well as PowerWorld.
- Experience in evaluating *feasibility and system impact studies* that analyze the prospect of interconnecting wind to a transmission grid.
- Continuous research (since 1994) in the transmission industry operational standards and tariffs.
- Open Access Transmission Tariffs and Locational Marginal Pricing issues within several transmission grids.
- *Interface discussions* with transmission service providers as well the Electric Council of Texas (ERCOT) Independent System Operator (ISO) for the interconnection of renewable projects.
- *Responses to requests for proposals* for the purchase of renewable generation.
- *Evaluation transmission system construction upgrades and the associated costs* necessary to incorporate renewable generation projects into the transmission grid.
- Analysis expertise in the *evaluation of wheeling charges as well as losses* within a transmission grid or in export of power across one or more transmission grids.
- Proposing and utilizing *Special Protection Schemes* in order to accommodate or expand the scope of renewable generation projects under certain limiting grid conditions.
- *Mapping* of potential wind generation sites with the transmission grid.
- *Design-engineering-procurement* coordination for renewable generation projects, in particular wind and solar.

**Distribution System Planning:**

Involvement in all aspects of the operations & planning of electric utilities distribution system since 1991, largely in the State of Texas. Experience covers the daily operations and maintenance aspects, as well as short and long term planning analysis. Routinely produced many studies and reports on Distribution System Long Range and Short Range Work Plans, Sectionalizing Work Plans, Motor Start Analyses, and System Operations Summary Reports such as power factor & losses tune up as well as Voltage Regulation and others. Conducted power requirement studies which included Load forecasting.

Skilled in performing distribution system analysis using Electric Power Engineers' Engineering/Mapping software, which distinguishes itself in its advanced GIS-Mapping/Engineering features.

Distribution Power System Planning- Rural Electrification Administration work plans, system protection plans, rate studies, power requirement studies and load planning, as well as substation feasibility studies.

Power System Operation – System mapping, system operations summary, voltage regulator settings, power factor correction (capacitor placement and sizing), motor starting, and system maintenance.

Design – Distribution lines, protective relaying and basic Substation specification recommendations.