**Project Manager Qualifications & Organization Description**

1. **Project Manager Qualifications**

**Steven Koester** is a professor in the Department of Electrical and Computer Engineering at the University of Minnesota (UMN). He received the Ph.D. in 1995 from the University of California, Santa Barbara, and the M.S.E.E. and B.E.E.E degrees in 1991 and 1989, respectively, from the University of Notre Dame. From 1995-1997 he was a postdoctoral research associate at the IBM T. J. Watson Research Center, and then stayed on as a research staff member from 1997 to 2010. Dr. Koester joined UMN in the spring of 2010, where his research focuses on novel electronic, photonic and sensing devices using 2D and ultra-wide-gap materials. His group specializes in device fabrication and characterization and his laboratory has a wide range of electronic characterization equipment for semiconductor devices. Dr. Koester has authored or co-authored over 250 technical publications, conference presentations, and book chapters, and holds 68 United States patents. He is a Fellow of the IEEE, and an associate editor of *IEEE Electron Device Letters*. **Steven Koester** will lead this proposed work and he will be responsible for the overall management of this project and the status reports of project update.

**Xiaojia Wang** is an assistant professor in the Department of Mechanical Engineering at the UMN starting in the fall of 2014. She received the Ph.D. in Mechanical Engineering from the Georgia Institute of Technology in 2011, and the M.E. and B.E. degrees in 2007 and 2004, respectively, from Xi'an Jiaotong University, China. She was a postdoctoral research associate in the Department of Materials Science & Engineering at the University of Illinois, Urbana-Champaign from 2012 to 2014. Her research focuses on the fundamental mechanisms of thermal and magnetic transport in micro/nano-engineered structures for energy conversion and harvesting, by utilizing the ultrafast pump-probe technique and other optical spectroscopic approaches. Her work has been featured on the cover images of *Advanced Functional Materials, Advanced Electronic Materials*, and *Nanoscale and Microscale Thermophysical Engineering*. She is currently a member of ASME Heat Transfer Division K9 Committee on Nanoscale Thermal Transport. She also serves as the editor of *Scientific Reports*

**Jungwon Choi** is an assistant professor in the Electrical and Computer Engineering at the UMN. She received the Ph.D. in the Department of Electrical Engineering at Stanford University, in 2019, the M.S. in Electrical Engineering and Computer Science from the University of Michigan, Ann Arbor, in 2013 and B.S. in Electrical Engineering from Korea University, in Seoul, Korea, in 2009. Her research interest is to design efficient RF resonant converters and matching networks in wireless power transfer (WPT) systems for consumer and industrial applications, and to evaluate wide band gap devices to operate at high switching frequency. She has been collaborating with Daihen Corporation to develop WPT systems and they have adopted her inverter design to implement their next-generation product. In 2017, she has been selected to the Rising Stars in EECS.

**Sairaj Dhople** is an Associate Professor in the Department of Electrical and Computer Engineering at the UMN. He received the Ph.D., M.S., and B.S. degrees in electrical engineering, in 2012, 2009 and 2007, respectively, from the University of Illinois, Urbana-Champaign. The main research interests of Prof. Dhople include modeling, analysis, and control of power electronics and power systems with a focus on renewable integration. He has received many awards, including the McKnight Land-grant Professorship (2017-2019), Associate of the Institute on the Environment (2017-2019), the Residential Fellow of Institute of Advanced Study (2017-2018) and National Science Foundation (NSF) Faculty Early CAREER Award in 2015.

**Ellen Anderson** received the J.D degree from the University of Minnesota Law School. She is a former Minnesota State Senator, and she currently serves as the Executive Director of the Energy Transition Laboratory (ETL) at the UMN. She is an expert in legal and policy issues related to energy, sustainability, and the environment. Through her leadership of the ETL, Dr. Anderson has successfully completed several high-impact collaborative projects on various topics engaging experts from public, private, community, and nonprofit spheres.

1. **Organization Description**

# Koester Nano-Device Laboratory (KNDL), Directed by Koester

Prof. Koester has laboratories in 6-158 and 3-154 Keller Hall, and office space in 6-149, 6-130 and 5-153 Keller Hall, all in the Department of Electrical and Computer Engineering at the UMN. The