

Re: Qatar's recent foray into solar energy

Hi X,

As Qatar works to achieve its goal of 20% non-gas energy by 2030, Qatar Foundation's Qatar Environment and Energy Research Institute (QEERI) has launched a number of interesting photovoltaic (PV) solar technology and energy diversification projects. Given your interest in this area, I wanted to gauge your interest in a background interview with QEERI's leading scientists to discuss their latest groundbreaking work.

Three examples of this group's initiatives to date are:

- Qatar's first utility scale Al Kharsaah solar power plant is expected to start operating this year. It aims to meet 10% of the peak electricity demand in the country, and will be critical to supplying solar power for the 2022 FIFA World Cup in Qatar. QEERI plays an important role in supporting this project with data and technology.
- They have developed two solar energy forecasting services: one based on Machine Learning methods with measurements from QEERI radiometric stations, and the other based on Numerical Weather Prediction Models with the satellite-derived data.
 - The ability to forecast the potential solar energy is crucial for the successful and optimized operations of solar power plants.
- QEERI conducts soiling analysis, which helps maximize the ROI of power plants in places like Qatar that have high dust deposition.

These technologies in Qatar can theoretically work anywhere in the world, because environmental conditions are so extreme that they make the country a perfect test-case, according to QEERI experts Dr. Veronica Bermudez, Senior Research Director of the Energy Center and Dr. Marc Vermeersch, executive director.

I've included their bios below and would be happy to arrange a conversation with either of them. I look forward to hearing from you.

Best,
X

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Marc Vermeersch bio

Dr. Marc Vermeersch is the Executive Director of Qatar Foundation's Qatar Environment and Energy Research Institute (QEERI). He leads scientific and technology research, development and innovation at QEERI, to tackle Qatar's Energy and Water Security Grand Challenges, and Environmental issues, while also addressing the impact of climate change on the State of Qatar and the region. During the last three years, he has transitioned the institute mandate from pure academic into a market-driven, applied research business unit, contracting key, strategic

partnerships with highly-ranked partner institutions and initiating financial sustainability through revenue generation from contracted services.

With more than 25 years of experience in research and innovation, Dr. Vermeersch has joined Qatar Foundation (QF) with first-hand knowledge in research, development and deployment (RD&D), as well as technology transfer and manufacturing. Prior to his appointment at QF, he worked at King Abdullah University of Science and Technology (KAUST - 2014) as a Professor of Practice and as the Managing Director of the Solar Center.

Veronica Bermudez bio

Dr. Veronica Bermudez is the Senior Research Director of the Energy Center at Qatar Environment and Energy Research Institute (QEERI) under Hamad Bin Khalifa University (HBKU), an entity of Qatar Foundation. She currently leads a team that works with the Qatari energy sector to conduct market-driven research, assess current problems and solve them in real-time.

Dr. Bermudez is an associate editor for the Journal of Renewable and Sustainable Energy and acts as an independent expert for a number of international funding agencies including the European Commission and European national funding bodies. She has also authored and co-authored more than 120 scientific papers in well-known journals, including Nature, Nature Energy and Science, and has delivered keynote speeches and talks at several international conferences.