

## R-NETS: A Game Changer for TCI's Energy Future



A Memorandum of Understanding signed between FortisTCI, Turks and Caicos Islands Government and the Clinton Foundation will help to accelerate implementation of the country's R-NETS.

Last week, the Turks and Caicos Islands (TCI) Government, FortisTCI, and the Clinton Foundation signed a memorandum of understanding (MOU) to begin implementing initiatives outlined in the country's Resilient National Energy Transition Strategy (R-NETS). The signing of this MOU on Wednesday, October 23, marks an important step forward in enabling the R-NETS and working towards a cleaner energy future.

Public discourse around electricity often points to the need to integrate solar and other forms of renewable energy in current methods of electricity generation. This focus on renewable energy is welcomed, because the move towards renewable energy is not simply a trend; it represents part of the global effort to combat climate change, create a more sustainable energy future, enhance system reliability and reduce the cost of electricity to customers.

What has sometimes been missed in these discussions is an understanding of the extent to which the Turks and Caicos Islands has planned for the integration of renewable energy. In fact, the public should be assured that a well-developed plan is in place to achieve this goal. This plan is the R-NETS, which was jointly developed by the TCI government (TCIG), FortisTCI and Rocky Mountain Institute, an independent nonprofit organization that transforms global energy use to create a clean, prosperous, and low-carbon future.

The process to develop the R-NETS began in 2018, with an initial meeting of TCIG, FortisTCI and RMI, to discuss and agree on the project timeline and objectives. At the heart of these objectives, the parties sought to identify viable and economic energy production and distribution options to meet the country's demands in the near and long term.

The process included public consultation meetings, which were held in Providenciales and Grand Turk on October 3 and 4, 2018 respectively. Further public input was also solicited following these initial meetings. Subsequently, the R-NETS was presented to stakeholders at additional public meetings held on Providenciales and Grand Turk, on March 19 and 20, 2019, respectively.

The R-NETS represents the commitment of TCIG, FortisTCI and the Rocky Mountain Institute to create a new energy

landscape for the TCI in a planned and sustained way to ensure that the country's energy supply remains cost-effective, reliable and resilient to shocks such as hurricanes and other disasters.

"It is important that we get renewable energy integration right, and getting it right means having a strategic plan in place through which we can achieve the outcomes as envisioned in the R-NETS," noted FortisTCI President and CEO Eddinton Powell. "The importance of a reliable supply of electricity to the economic and social development of the country cannot be overstated. As the TCI's energy provider, FortisTCI is committed to working with all partners and stakeholders in the transition to a new energy future."

The R-NETS looks at the TCI electricity system over a 22-year period, from 2019 to 2040, and identifies several benefits to electricity stakeholders during this time, including reduced cost, continued reliability of service, integrating even more renewable energy sources into electricity generation and a significant reduction in emissions from current levels.

The R-NETS envisions that the total electricity system costs can be reduced by US\$115.2 by 2040. A reduction in diesel use of 10.3 million gallons annually, or 12.3 percent relative to a business-as-usual case, is also projected. Over the 22-year period, there are opportunities to diversify electricity sources by increasing renewable energy penetration to 33 percent in total energy production. The strategy also calls for incorporating distributed and flexible energy sources, to increase system resilience to external shocks, and a reduction in total emissions, with a 12 percent decrease over the 22 years versus 2018.

Electricity stakeholders could also see several other benefits, based on certain recommendations contained in the R-NETS. These include taking new energy efficiency approaches, including a utility-run program that targets the largest customers.

With a focus on a sustainable, reliable, and least-cost energy future, the R-NETS also recommends an accelerated uptake of FortisTCI's existing Customer Owned Renewable Energy (CORE) and Utility Owned Renewable Energy



FortisTCI recently launched an integrated solar plus energy storage pilot project at a residential premises in Providenciales. The project will provide data on battery storage usage, costs and technology for the islands.



FortisTCI Resource Planning and Utility Analytics Officer TeAnn Thomas and Rocky Mountain Institute's Associate Sydney Jules delivered a presentation on the TCI's R-NETS at CARILEC's Renewable Energy and Smart Grid Conference and Tradeshow, held in Miami, Florida, September 15-19.

(UORE) programs for distributed solar to 3 MW over the next five years. It also proposes additional utility-scale solar PV projects with the aim of installing up to 7 MW total of distributed solar PV across the three main electricity systems in the TCI within the next four years. Pilot energy storage projects led by the utility also form part of the recommendations.

On energy storage, FortisTCI has already taken steps to implement this recommendation. One of the company's most recent projects in the renewable energy space is an integrated solar plus energy storage (behind-the-meter) pilot program, currently happening at a residential property in Providenciales. This project marks an important step forward in gathering data and valuable insights into the technology and economics of energy storage, which can inform future projections.

The R-NETS also recommends a detailed wind resource assessment to determine the potential and viability of commercial and utility-scale wind projects in the TCI. To make all these programs a reality, the R-NETS recognizes the necessity for accelerated implementation of mutually agreed legislation that is precedent to support other (TCIG-FortisTCI) agreed renewable energy programs.

To learn more about the R-NETS, visit [https://rmi.org/wp-content/uploads/2019/03/TCL\\_RNETS\\_ExecutiveSummary.pdf](https://rmi.org/wp-content/uploads/2019/03/TCL_RNETS_ExecutiveSummary.pdf)