

## Playbook Lesson Learned Phase 3: Project Preparation

### Focused, Streamlined Team Effort Lays Groundwork for a Quick Win in Turks and Caicos

In 2016, the utility in the Turks and Caicos Islands (TCI), FortisTCI, partnered with experts from the Islands Energy Program at Rocky Mountain Institute - Carbon War Room (RMI-CWR)<sup>1</sup> to issue a request for proposals (RFP) for an engineering, procurement, and construction (EPC) company to construct and install a 1-megawatt solar photovoltaic (PV) system across five sites. This project, the first of this type undertaken in the TCI, supports FortisTCI's goal to integrate renewable energy levels identified in the company's integrated resource plan (IRP), which also identified an optimum energy mix based on the principle of reliable, least-cost energy.

FortisTCI adopted a parallel approach to the procurement process, pursuing a well-thought-out and strategic project to jump-start the integration of renewable energy and gain momentum while planning for medium- and long-term energy transition goals. This approach addressed a common challenge island communities face as they begin the project preparation phase—the need to lay the groundwork for successful completion of a “quick win” project to build momentum for energy transitions. In TCI, this challenge encompassed building familiarity with new energy technologies, demonstrating that success is possible, and paving the way for robust long-term planning to inform future investments.

#### Challenge

Moving quickly yet strategically to meet the targets of its IRP was a high priority for FortisTCI. It was critical for the utility to identify and implement a project that made economic and technical sense, was good for its customers, and ensured the company was on track to deliver against its renewable energy goals for 2025. Finding viable sites, evaluating interconnection points, conducting a smooth RFP process, and understanding local permitting requirements across five separate sites were among the immediate challenges FortisTCI faced as it sought to create the foundation for a successful renewable energy project.



FortisTCI and RMI-CWR signing of a memorandum of agreement to jointly develop and commercialize the first utility-scale solar project across five islands in the Turks and Caicos Islands. *Photo from FortisTCI.*

<sup>1</sup> The Islands Energy Program is funded by the Dutch Postal Code Lottery and the Global Environment Facility with support from the United Nations Development Program Office for Barbados and the Eastern Caribbean.

## Solution

To keep pace with its aggressive timeline, FortisTCI adopted a collaborative approach to project preparation that fostered swift and decisive in-parallel actions aimed at compressing some of the most important early steps in the process, including:

### 1. Assembling a Joint Project Team:

Establishing a strong integrated project team that included a dedicated utility project lead, consultant subject matter experts, and joint utility and consultant execution staff was a critical first step in creating efficiencies that paved the way to successfully implementing the largest solar project seen in the TCI.

### 2. Selecting the Project Site:

On the utility side, the project lead worked to identify utility-owned sites within close proximity to optimal interconnection points.

### 3. Conducting Technical Studies:

In parallel, RMI-CWR conducted site-specific solar resource assessments and preliminary solar design, and developed the technical requirements for the solar PV system.

### 4. Completing the Procurement Process:

In addition, FortisTCI utilized a two-step solicitation process. A request for qualifications (RFQ) was released while the site selection and technical studies tasks were under way. This allowed the joint team to continue finalizing technical requirements for each of the five solar PV sites while simultaneously evaluating the qualifications and experience of prospective EPC companies. This also allowed the joint project team to finalize the detailed RFP in parallel. The two-step RFQ/RFP process also helped reduce the evaluation period, as fewer bids were being reviewed during the technical and financial evaluation process. This streamlined approach ensured the RFP was disseminated to only the short list of qualified bidders, so a winning bidder could be identified to bring the project to completion in a relatively short time frame.

### 5. Aggregating Critical Scale Across Islands:

To take advantage of the competitive prices available for larger-scale installations, FortisTCI combined solar projects across five islands to create a project with a total size of 1 MW. The 1-MW project leverages procurement, shipping, mobilization, labor, legal, and administrative costs within one single EPC contract, as opposed to five small separate projects, and contracts where the cost per watt would be much higher.



FortisTCI and RMI-CWR assess the current diesel generation on Salt Cay, Turks Islands. Diesel generator fuel efficiency and operating parameters must be considered to properly integrate solar PV into existing energy infrastructure. *Photo from RMI-CWR*

## Key Takeaways

A dedicated and diverse project team is a priority to accelerate not only the procurement process but also the overall progress of the project preparation phase. While assessing opportunities for delivering a successful renewable energy project, the team focused on the parallel processing approach for evaluating the project sites, verifying the solar energy production and capacities, issuing the RFQ and then the RFP (only to the short list), and understanding the roles and expertise needed to support it. This focused, synchronous action led to a smooth procurement process and identification of an experienced EPC contractor to complete the project efficiently at a very competitive cost.

This lesson learned is one of many provided in the Energy Transition Initiative Islands Playbook—an action-oriented guide to help island communities successfully initiate, plan, and complete a transition to a clean energy system and eliminate dependence on imported fuels. See the full Islands Playbook at [www.eere.energy.gov/islandsplaybook](http://www.eere.energy.gov/islandsplaybook).

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The Energy Transition Initiative leverages the experiences of islands, states, and cities that have established a long-term vision for energy transformation and are successfully implementing energy efficiency and renewable energy projects to achieve established clean energy goals. Through the initiative, the U.S. Department of Energy and its partners provide government entities and other stakeholders with a proven framework, objective guidance, and technical tools and resources for transitioning to a clean energy system/economy that relies on local resources to substantially reduce reliance on fossil fuels.