



## Customer Success Story

**Daffodil helps Bridge to India to develop a business intelligence and analytics tool for renewable energy in India.**



**Customer:** Bridge to India  
**Country:** India  
**Industry:** Energy  
**Our Role:** Product Engineering

## About Client

Bridge to India is a leading consulting and knowledge services provider in the Indian renewable market. They work with various stakeholders in the solar power industry such as technology companies, government agencies, and developmental institutions. They have been consulting some of the top-tier clients such as the Indian Government, GE, SunPower, AES, Fortum, Huawei, etc. to set up solar power plants across the country. They've got a unique vantage point on the market dynamics, combining the 360-degree view from their market intelligence capability with the in-depth analysis performed as part of their consulting and transaction advisory businesses.

**1TB**

of data digitized

**650**

hours of development  
effort saved

**73%**

increase in organizational  
efficiency

# Problem

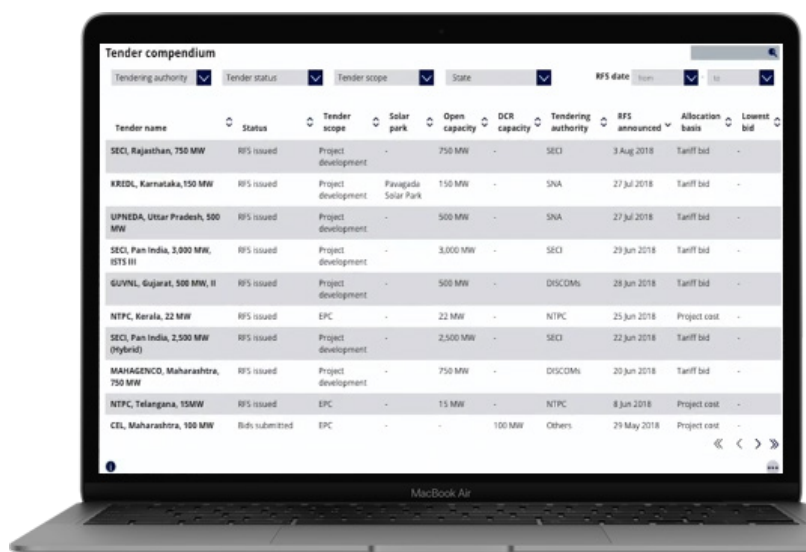
To meet the solar energy goals, companies are finding new ways to automate and speed processes that make it easier for consumers, businesses, utilities, solar companies, and others to access solar power. Recognizing that the perceived risk of investing in a solar energy project is much greater than the actual risk, Bridge to India supports market players who are working in the solar energy domain using data and system performance metrics. In order to convince and educate the key stakeholders about the renewal market, the client conducts a lot of research on data points, infographics and business intelligence.

All the reports and research data was manually managed and the reports were published in print format. This process was time-consuming and was prone to errors. As the quantity of documents increased, the TAT soared further and the company was not able to keep up with business requirements. Some of the key challenges that Bridge to India was facing were:

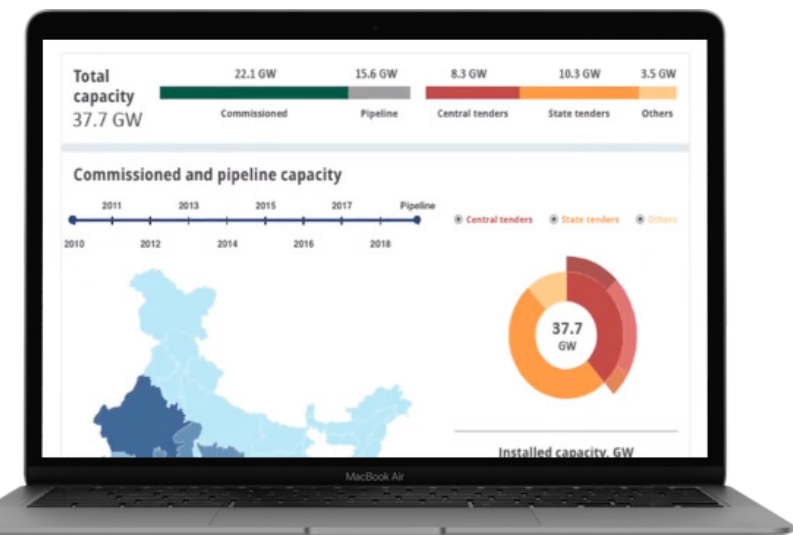
- **Data Management:** There was no data repository and data was scattered at different locations and that was increasing the effort required for analysis.
- **Wide Audience:** The number of stakeholders were increasing day by day and their old system was not scalable. They needed a solution that could deliver their findings to several stakeholders in less time and budget.
- **Real Time Data/Latest Trends:** As it was taking so much effort to do analysis and publication manually and they were not able to publish it more than twice a year though demand was to get insights on the real-time basis.
- **Time and Cost:** A lot of time was required to do manual analysis and publishing it manually. This was increasing the overall cost of publication as well.

# Solution

Analyzing the scope of the solution, technicalities involved, and time-to-market, Daffodil proposed a low code development approach using reusable components. Low code development is a modular approach to application development that significantly reduces a product's time-to-market. It uses a reusable, component-based architecture for development that boosts the app development and delivery cycle. In the case of Bridge to India, reusable components were expected to reduce development time by half. Daffodil initiated the development process by understanding the core business process and data flow within the organization. The roles of different departments and their data requirements were apprehended to create a flowchart for the entire organization.



Tender name	Status	Tender scope	Solar park	Open capacity	DCR capacity	Tendering authority	RFS announced	Allocation basis	Lowest bid
SECI, Rajasthan, 750 MW	RFS issued	Project development	-	750 MW	-	SECI	3 Aug 2018	Tariff bid	-
KREDL, Karnataka, 150 MW	RFS issued	Project development	Pavagada Solar Park	150 MW	-	SNA	27 Jul 2018	Tariff bid	-
UPNEDA, Uttar Pradesh, 500 MW	RFS issued	Project development	-	500 MW	-	SNA	27 Jul 2018	Tariff bid	-
SECI, Pan India, 3,000 MW, ISTS III	RFS issued	Project development	-	3,000 MW	-	SECI	29 Jun 2018	Tariff bid	-
GUVN, Gujarat, 500 MW, II	RFS issued	Project development	-	500 MW	-	DISCOMs	28 Jun 2018	Tariff bid	-
NTPC, Kerala, 22 MW	RFS issued	EPC	-	22 MW	-	NTPC	25 Jun 2018	Project cost	-
SECI, Pan India, 2,500 MW (Hybrid)	RFS issued	Project development	-	2,500 MW	-	SECI	22 Jun 2018	Tariff bid	-
MAHAGENCO, Maharashtra, 750 MW	RFS issued	Project development	-	750 MW	-	DISCOMs	20 Jun 2018	Tariff bid	-
NTPC, Telangana, 15MW	RFS issued	EPC	-	15 MW	-	NTPC	8 Jun 2018	Project cost	-
CEL, Maharashtra, 100 MW	Bids submitted	EPC	-	-	100 MW	Others	29 May 2018	Project cost	-

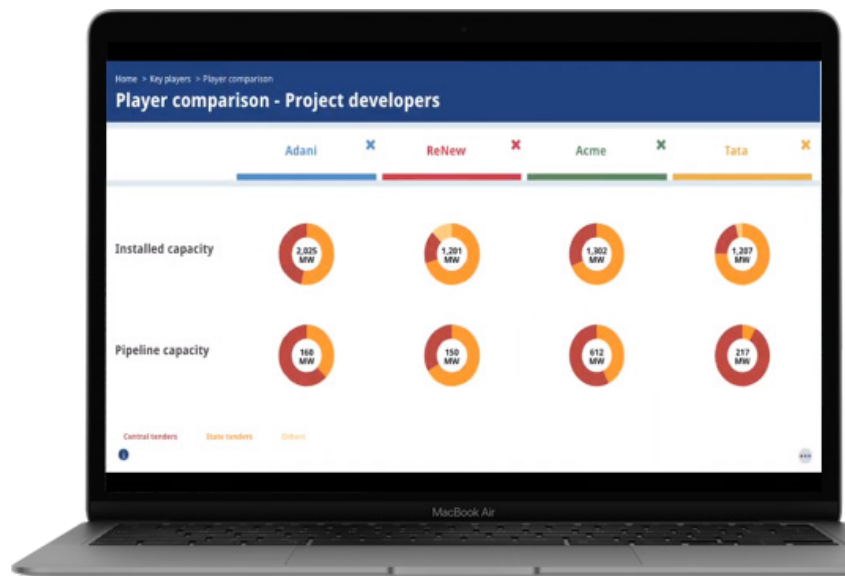


The Daffodil team identified appropriate resources and converted this project into a market ready real-time platform using HTML5 and javascript. We implemented data versioning to allow users to go back and retrieve specific versions of digital objects. We migrated old data in digital format and created a database in MongoDB to easily implement big data analytics on the entire set of raw data. We added custom dashboards for analytics integrated with D3 Charts and Google Analytics. In order to make data searching and lookup convenient, each case was associated with a unique document ID. The web application made the data accessible to all the departments, over a public network.

A set of APIs were used to fetch and transfer data. Using a mix of technologies, Daffodil delivered a robust platform to do deep analysis on the large set of raw data gathered from fields and provide easy to understand, actionable insight to each stakeholder.

A few key features that Daffodil implemented in the application were:

- Data versioning
- Custom dashboards for analytics
- Central depository for database
- Structured and systematic database libraries
- Liberty to publish reports in real time
- Cloud storage



# Impact

Bridge to India was able to launch and market the product in a timely manner as Daffodil ensured that the deliverables were provided on time and with maintaining quality so as to meet all the deadlines. By recreating the architecture and following the low code development approach, Daffodil was able to save about 650 hours of development time for Bridge to India. The application has facilitated Bridge to India to publish their reports in real time basis that has positioned them in the frontline within renewable energy space. The application has created an easy and systematic way of data capturing and maintaining data consistency. With more than 1 TB of data digitized, the application is helping Bridge to India in analyzing new trends and finding new avenues and territories for business expansion.



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# Technology Stack













- HTML5
- PHP
- MongoDB



# About Daffodil

Daffodil Software is a software engineering partner to 100+ organizations across the globe and has been helping them in making their software products more robust, teams more productive and processes more efficient. Our ability to look beyond technologies to deliver innovative solutions with scale and speed has been lauded by our clients as well as the tech community worldwide.

Since our inception, we have invested in organic growth; building on our engineering capabilities, organizational processes, and culture required to deliver a truly collaborative ecosystem for solving technology challenges. At the core of Daffodil lies a culture rooted in innovation, learning and a result-oriented mindset.

## GRANDVILLE, USA

2885, Sanford Ave SW  
#28585, Grandville,  
MI 49418 USA

## GURGAON, INDIA

9th Floor, Tower B1,  
DLF SEZ Silokhera,  
Sector 30, Gurgaon  
122001

## DUBAI, UAE

Suite No.: 407- 412,  
Clover Bay Tower,  
Business Bay, Dubai  
United Arab Emirates

## HISAR, INDIA

6th Floor, Metropolis Mall,  
Industrial Area, Hisar,  
Haryana - 125005



✉ [info@daffodilsw.com](mailto:info@daffodilsw.com)

🌐 [www.daffodilsw.com](http://www.daffodilsw.com)