

Knowledge Sharing Report
Hub Platform Launch Report
Renewable Energy Hub
November 2020



Project Summary	
Project	Renewable Energy Hub: A Wholesale Renewable Energy Firming Marketplace Demonstration Project
Project Number	2019/ARP052
Recipient	Renewable Energy Hub
Key contact	Philip Cohn, Chief Operating Officer Renewable Energy Hub E: phil@renewableenergyhub.com.au

This Project received funding from ARENA as part of ARENA's Advancing Renewables Program.

Disclaimer

The views expressed herein are not necessarily the views of the Australian Government, and the Australian Government does not accept responsibility for any information or advice contained herein.

Contents

Introduction	4
The Hub Platform	5
Wholesale Market Participants	6
Renewable Energy Project Developers	7
Commercial & Industrial Energy Users	8

Introduction

Renewable Energy Hub has commenced an 18-month project (the “Project”) with support from the Australian Renewable Energy Agency (ARENA). The project will work with market participants to develop specifications for a suite of innovative, standardised hedge contracts that are suited to both variable renewable energy (VRE) generators and new sources of clean dispatchable capacity (e.g. battery storage, pumped hydro storage and demand response), as well as the changing needs of energy retailers and large customers.

Though the energy transition is gaining momentum with increasing volumes of VRE assets coming onto the market, there is a lack of volume and diversity in hedge contracts to support forward contracting of revenue for these asset classes. This lack of products reduces choice, impacting liquidity and in the long run increases the difficulty of new participants entering the market and participating in an effective and efficient manner.

In addition to developing new hedge contracts, the Project also involves the development of a digital platform that will enable prospective counterparties to access live market pricing, assess the value of the new hedge contracts, evaluate the risks of different contract positions under a range of scenarios and provide a point of market access for new and emerging clean energy providers.

This report provides an overview of the features of our digital marketplace, the Hub. We invite readers to register their interest in accessing the Hub on our website -

<https://www.renewableenergyhub.com.au/marketplace>

The Hub Platform

Renewable Energy Hub’s Australian-first marketplace is a central source of data, tools and transactions for a renewable energy future. The development of the Hub has been supported by funding from ARENA as part of ARENA’s Advancing Renewables Program.

The Hub has been developed in collaboration with key market participants, designed to deliver true value, and importantly, accelerate the uptake of renewables across the economy.

There is simply nothing in the market like the Hub, which not only combines critical market data with powerful transactional and analytical capabilities – it makes the renewable energy market accessible in a way it never has been before. All within a beautiful, modern customer interface.

We believe standardized contracting approaches and a digital market platform will disrupt the current energy market consulting and transactions paradigm which is characterized by complex, bespoke structures and high costs to participants.

Renewable Energy Hub’s marketplace is a powerful tool that will benefit a number of actors in the energy sector. We have identified the key customer segments – wholesale market participants (retailers, traders and firming providers), renewable energy project developers and asset owners, and large commercial and industrial energy users. Across each of these segments our digital marketplace will enable our clients to source, evaluate and transact renewable energy, underpinned by our expert advisory services.



Wholesale Market Participants

Renewable Energy Hub recognize the challenges that sophisticated wholesale market participants face in the efficient management of price volatility. They depend on multiple vendors and internally developed systems to access NEM system data, energy futures pricing and environmental market data. On top of this, the inability to trade in or out of renewable energy positions, as well as the resourcing intensity required to evaluate and firm PPAs against customer loads, means the marketplace is ripe for disruption with new tools and ideas.

Our Hub Marketplace addresses these challenges and provides value to all market participants by consolidating diverse data from AEMO, ASX, OTC markets, BOM and more. Live and historical prices across electricity and environmental markets are readily accessible, including Renewable Energy Hub's suite of new hedge contracts.

In the Hub you can evaluate trading options, compare different contracts under a range of conditions, and build scenarios and contract portfolios based and assess how they perform under different conditions.

Users will be empowered to make the best decisions by knowing what is happening across the NEM in real time markets, alongside financial markets, weather and more.

Renewable Energy Hub for Wholesale Market Participants

1. New wholesale contracts and well credentialed counterparties

2. Market data across NEM, ASX, OTC and BOM

3. Digital tools – contract evaluation & asset analysis

4. Brokerage – PPAs, energy & LGCs

5. Transactions advisory for asset sales & acquisitions

Figure 1: Trader View

Product	Reference Product	Name	Live Market						
			VOL	BID	OFFER	VOL	LAST	CHANGE (\$)	CHANGE (%)
CY21QF		Qld flat CY 2021	2.00	40.55	41.00	1.00	40.50		
	CY21QSP	Qld super peak CY 2021					77.00		
Q121VP		Vic peak Q1 2021	5.00	142.00	155.00	2.00	150.00		
	Q121VS	Vic solar Q1 2021	5.00	5.00					
CY21VF		Vic flat CY 2021	2.00	53.50	54.25	2.00	53.75		
	CY21VSP	Vic super peak CY 2021					121.00		

Trader View provides tools to evaluate hedge contract risk and value through the utilisation of historical market data, futures contract pricing and scenario analysis.

Renewable Energy Project Developers

For renewable energy project developers and asset owners, there are significant barriers in the current market when seeking to contract their output and de-risk forward revenues. The existing contracting process doesn't support firm supply and is highly resource and time intensive.

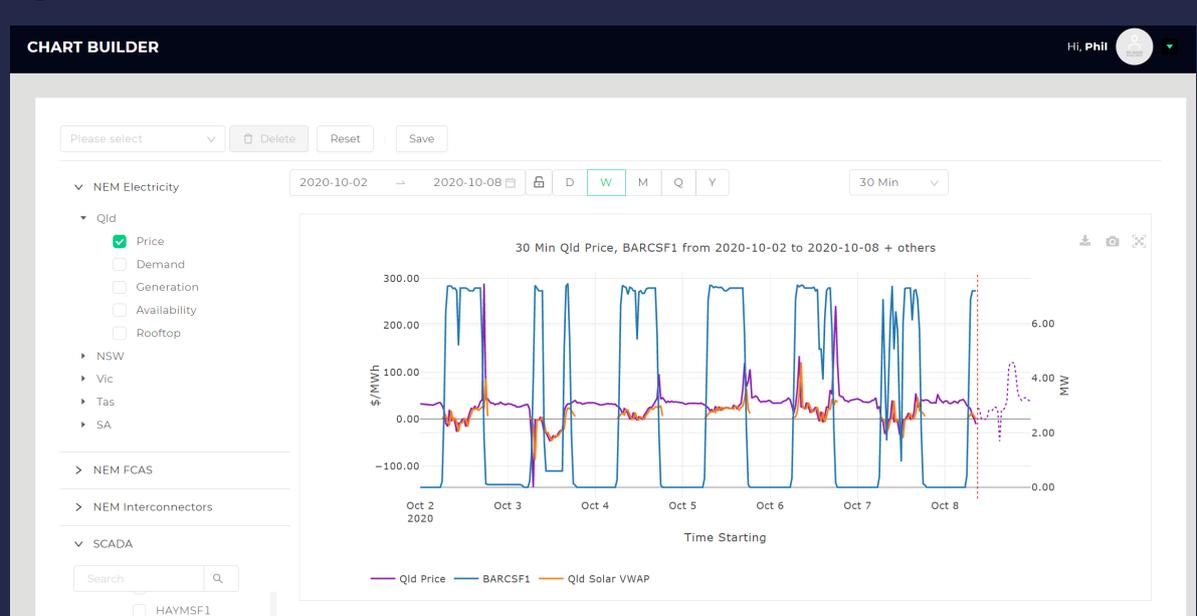
Within the Hub, project developers get market data and transparency about what's happening in the NEM, ASX, OTC and more – providing greater ease of access, particularly for new generators.

Our unique firming contracts address requirements of renewables generators; hosting on the Hub provides a focal point for new market contracts and liquidity.

The Hub toolkit enables evaluation of generation profiles against different revenue contracting scenarios, and the risk and revenue metrics provide clarity on transaction options.

The data and evaluation toolkit, underpinned by in-market brokers, provide low cost access to market.

Figure 2: Chart Builder



In the Chart Builder module, generators and buyers can upload their load and demand profiles on a half-hourly basis across the year to match profiles for trading hedge products.

Commercial & Industrial Energy Users

Large commercial and industrial energy users have a huge challenge in procuring and securing energy supply for their organisations, let alone meeting sustainability objectives by procuring renewable energy.

The transition to renewables across the NEM is causing rapid changes to market dynamics which are challenging standard approaches, requiring even greater understanding of electricity market price drivers and dynamics, often necessitating expensive advisory services.

For energy buyers, the Hub facilitates access to renewable energy PPAs alongside the firming contracts backed by clean energy providers.

As well as easy access to a broad range of market data, the Hub's evaluation modules provide visibility, analytics, and simplify of the process of procuring renewable energy.

For additional information regarding Renewable Energy Hub's unique firming contracts which are listed on the Hub we have prepared a range of reports and supporting materials. Please visit our ARENA [project page](#) to review Knowledge Sharing materials including the Contract Performance Report and Legal Overview Report. These documents provide detailed analysis and guidance on the legal structure and requirements of the hedge contracts, as well as recent transaction details.

If you wish to access the Hub platform, please register on our website - <https://www.renewableenergyhub.com.au/marketplace>

Renewable Energy Hub for C&I Energy Buyers

1. Standardised electricity,
renewables and carbon
procurement platform

2. Market data across NEM,
ASX, OTC and BOM

3. Ongoing portfolio
management, reporting and
data