

Electricity Authority

Perceptions of Financial Transmission Rights

Research Report

December 2017



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Introduction

1.1 Background

The Financial Transmission Rights (FTR) market is currently a five-hub model, with two hubs in the North Island and three in the South Island. This five-hub model enables FTR participants to manage both inter-island and intra-island locational price risk.

The Electricity Authority (the Authority) commissioned this research to understand perceptions of the FTR market from a range of audiences who purchase FTRs.

1.2 Methodology

The report outlines the responses from telephone interviews conducted with electricity retailers, gentailers, financial entities and large direct consumers in New Zealand. In total 20 respondents were interviewed.

Breakdown of respondents

<i>Audiences</i>	
	Count
Base: n=	20
Generator-retailers (Gentailers)	7
Standalone retailers	7
Financial entities	3
Large direct consumers	5

Base: All respondents

Note: Multiple response

Fieldwork was conducted from 14th November to 1st December 2017.

Due to the small sample size the counts have been reported instead of percentages in the tables.

Executive summary

■ Overview

There appears to be a limited market for Financial Transmission Rights (FTRs) with less than half of those interviewed buying or trading these products. Those using the FTR market indicated it was an effective tool to have in their risk management strategy, with some seeing a reduction in the cost of administering their strategy and others noting it allowed their organisation to underwrite or support other risk management products.

There would clearly need to be improvements made to the FTR market if it is to expand and grow. The key suggested improvements included the addition of more nodes and educating users on how to handle the complexity of the market.

Before expanding the number of nodes, EA could focus on educating potential participants on how to effectively navigate this market. Adding nodes prior to this education piece, may increase perceptions that the market is too complex and deter entry.

■ Financial implications of using Financial Transmission Rights

Gentailers and standalone retailers who use FTRs were asked the significance of the role these products played in their risk management strategy. Five of these seven respondents indicated that FTRs play a significant role.

However, respondents were mixed on the impact FTRs have had on the cost of their risk management strategy. Two of the gentailers and standalone retailers who use FTRs said that using them had significantly reduced the cost of their risk management strategy, one had seen some reduction, while one had seen no significant reduction and two believed FTRs had actually increased the cost.

■ Impact on retailing and generation

Only two of the gentailers and standalone retailers who use FTRs said that using these products had help them to expand their retailing into new geographical areas.

Of the two respondents who stated that FTRs had helped them expand retailing into new geographic areas, one respondent said FTRs have helped them expand to the South Island and one said FTRs helped them manage locational risk across the whole of New Zealand. They both indicated that FTRs were a significant factor in the decision to expand into those areas.

FTRs have not helped any of the gentailers interviewed to locate generation in new areas or caused a change in the way they offer their generation into the market.

■ Financial Transmission Rights supporting other risk management products

Half of the gentailers, standalone retailers and financial entities who use FTRs said that using FTRs had enabled them to underwrite or support other risk management products.

These respondents were asked how FTRs have enabled them to underwrite other risk management products. A few respondents mentioned that FTRs enabled them to build a portfolio that offsets risk across other products. All of these respondents mentioned they used ASX futures products.

■ Potential improvements

Respondents offered a range of suggestions to improve the FTR market. Common suggestions included adding more nodes, dealing with the complexity of the market, and educating potential participants to encourage competition.

The most prominent improvement suggested was to extend the number of hubs, especially one in the central North Island, with many respondents mentioning Whakamaru as an important hub to add.

Many respondents were unsatisfied with the current structure of the market, stating it is too complex. While other respondents had a somewhat more pragmatic view stating the market should be as complex as necessary to be effective.

Some respondents felt there were barriers to competition in the FTR market. There were a few suggestions to improve this:

- Ensure minimal barriers to competition by making the market as accessible as possible
- Educate potential participants so they can enter the FTR market
- Help smaller organisations establish relationships and contacts with larger organisations to help them enter the FTR market.

Another suggestion mentioned by a few was to increase the frequency of the auctions. With one respondent suggesting that all products should be auctioned every month.

Report

2.1 Current Financial Transmission Rights usage

Only eight of the 20 respondents interviewed currently buy or trade Financial Transmission Rights. Of the eight who use FTRS, five buy or trade directly and three participants use a broker.

Of those that buy or trade directly – the main reason for trading directly is that they are already set up for direct trading so there is no reason to go through a broker while one respondent also noted that FTRs are rarely available via a broker.

“You just have to do it through the auction to get the quantity you want. They very, very rarely come up through the broker.”

Each respondent who uses a broker to buy or trade FTRs mentioned the ease of set up and service provided from the broker. One respondent indicated they were happy to use a broker since they are better equipped to deal with the operational complexity involved in the FTR market.

“It also is a modest fee for operational complexity in so far as the registration process, the maintenance of an account and a relationship with the FTR manager, it all just requires a little bit of complexity which is more operational in nature rather than trading and, so it is just not really our expertise and, so we are sort of outsourcing that operational work to OMF because it just reduces the overheads that we need in order to facilitate the business.”

CURRENT METHOD TO PURCHASE FINANCIAL TRANSMISSION RIGHTS

Do you currently buy or trade FTRs either directly or through a broker such as OMF, or some other way?

	Count
Base: n=	20
Directly	5
Through broker	3
Both	-
Other	-
Unsure	-
No	12

Base: All respondents

2.1.1 Paths purchased

Of those who use FTRs, most purchase on all or most paths, with only one respondent purchasing via particular paths.

The one respondent who purchases a particular path said they do not purchase FTRs that often and when they do it is usually the two main ASX hubs to cover inter-Island risk.

CURRENT FINANCIAL TRANSMISSION RIGHTS PURCHASED

The FTR market is currently a five-hub model with two hubs in the North Island and three in the South Island. Do you purchase FTRs on all or most paths or a few particular paths, sources or sinks?

	Count
Base: n=	8
All or most paths	7
Particular paths, sources or sinks	1
Unsure	-

Base: Respondents who currently buy or trade FTRs

2.1.2 Reasons for purchasing all or most paths

Most of the respondents that purchase FTRs on all or most paths stated they did this to diversify their exposure to risk.

Around half of these respondents stated they purchase FTRs on all paths to cover locational risk, including covering South Island risk.

“Because we have a large customer base across all regions, so it’s just covering all our locational risk.”

A few respondents said they purchase FTRs to speculate on the wholesale market.

“So, two reasons. One is for risk mitigation for our overall electricity portfolio and the other one is to speculate on outcomes.”

2.2 Financial implications of using Financial Transmission Rights

Gentailers and standalone retailers who use FTRs were asked how significant FTRs are in their risk management strategy.

Five of these seven respondents indicated that FTRs play a significant role in their risk management strategy, one respondent stated FTRs were not that significant, and one said FTRs were not at all significant in their risk management strategy.

SIGNIFICANCE OF FINANCIAL TRANSMISSION RIGHTS IN RISK MANAGEMENT STRATEGY

How significant are FTRs in your risk management strategy as a retailer/ generator/ consumer?

	Count
Base: n=	7
Very significant	2
Somewhat significant	3
Not that significant	1
Not at all	1

Base: Gentailers and standalone retailers who use FTRs

Respondents were mixed on the impact FTRs have had on the cost of their risk management strategy.

Two of the gentailers and standalone retailers who use FTRs said that using them has significantly reduced the cost of their risk management strategy, two had seen some reduction, while two respondents said that using FTRs had actually increased the cost.

COST IMPLICATIONS OF FINANCIAL TRANSMISSION RIGHTS IN RISK MANAGEMENT STRATEGY

How much have FTRs reduced the cost of your risk management strategy?

	Count
Base: n=	7
Significantly	2
Somewhat	1
Not that significant	1
Not at all	-
Added cost	2
Prefer not to say	1

Base: Gentailers and standalone retailers who use FTRs

2.3 Expansion of retailing

Only two of the gentailers and standalone retailers who use FTRs said that using these products has helped them to expand their retail business into new geographical areas.

FINANCIAL TRANSMISSION RIGHTS IMPACT ON EXPANDING RETAIL BUSINESS	
Have FTRs helped you to expand your retailing into new geographical areas?	
	Count
Base: n=	7
Yes	2
No	5
Unsure	-

Base: Gentailers and standalone retailers who use FTRs

Of the two respondents who stated that FTRs have helped them expand retailing into new geographical areas, one respondent said FTRs have helped them expand to the South Island and one said FTRs helped them manage locational risk across the whole of New Zealand. They both indicated that FTRs were a significant factor in the decision to expand into those areas.

These respondents were asked in what ways FTRs have helped them expand into these areas, they both mentioned limiting exposure to risk.

“[FTRs] Help us manage locational, energy and load flex risk. So, all aspects of risk management really.”

2.4 Impact on locating generation in new areas

FTRs have not helped any of the gentailers interviewed to locate generation in new areas or caused a change in the way they offer their generation into the market.

FINANCIAL TRANSMISSION RIGHTS IMPACT ON LOCATING GENERATION IN NEW AREAS

Have FTRs helped you to locate generation in new areas?

	Count
Base: n=	4
Yes	-
No	4
Unsure	-

Base: Gentailers who use FTRs

CHANGES TO OFFERING GENERATION INTO MARKET DUE TO FINANCIAL TRANSMISSION RIGHTS

Have FTRs caused you to change the way you offer your generation into the market?

	Count
Base: n=	4
Yes	-
No	3
Unsure	1

Base: Gentailers who use FTRs

2.5 Financial Transmission Rights supporting other risk management products

Half of the gentailers, standalone retailers and financial entities who use FTRs said that using them has enabled their organisation to underwrite or support other risk management products.

FINANCIAL TRANSMISSION RIGHTS ENABLED SUPPORTING OTHER RISK MANAGEMENT PRODUCTS

Have FTRs enabled you to underwrite or support other risk management products such as ASX futures/options, over-the-counter hedges etc?

	Count
Base: n=	8
Yes	4
No	4
Unsure	-

Base: Gentailers, standalone retailers and financial entities who use FTRs

These respondents were asked how FTRs have enabled them to underwrite other risk management products. A few respondents mentioned that FTRs enable them to build a portfolio that offsets risk across other products.

“Well it’s another means of hedging your basis risk. So, you can offset that against your ASX positions.”

When asked about the products they purchased all four mentioned ASX futures products while only one respondent mentioned over-the-counter hedges.

“We are quite happy to buy a portfolio of FTRs which we think offsets another product such as caps or ASX futures or retail hedges to I guess play the spread between the two.”

One of these respondents said that FTRs have enabled them to support other risk management products across the entire country. The remaining three respondents mentioned that FTRs helped support risk management across the North and South Island.

2.6 Suggestions for improvements to the Financial Transmission Rights market

Respondents offered a range of suggestions to improve the Financial Transmission Rights market. The most common suggestions were to add more nodes, deal with the complexity of the market, and educate potential participants to encourage competition.

■ Addition of more nodes

Many called for additional nodes to be added to the FTR market. Five respondents suggested the new nodes be added somewhere in the central North Island - Whakamaru was suggested on multiple occasions.

A reason for favouring Whakamaru was the fact that there is no generation in Auckland so an additional node in the central North Island would allow participants to hedge retail risk north of Whakamaru.

“Approve the additional nodes that have been requested. It will help the somewhat market develop, particularly Whakamaru suggested in the central North Island because we have got an imbalance now with Southdown and Otahuhu plant generation closed down in Auckland, there is no Auckland generation, so you can get some funny things happening around Otahuhu.”

“There is no generation in Auckland, so we need to be able to hedge the retail risk north of Whakamaru. So that is going to be the best thing that could happen; to get one hub added there at Whakamaru.”

A few respondents indicated that there should be a significant number of additional nodes.

“We need to have more nodes and expanding from 5 to 7 is a small step in the right direction but I think we should be looking to have many more nodes covering all of the key transmission that happens on the system.”

“[Is there a limit to the amount you would like to add?] No, I think we should be aiming to have 20-30 nodes not 5 or 7.”

■ Mixed views on complexity of the market

Reduce complexity of the FTR market

There were calls to reduce the complexity of the market for a range of reasons.

A few respondents noted that with each node added the complexity of the market increases exponentially. This should be considered when planning additional nodes. One respondent even went on to say that this complexity was a barrier to competition.

“Make it less complex. So, I think they have grown it far too large. So, you said at the beginning there are five hubs, so that means there is actually 40 products for each month that’s offered, and they are now increasing that to 8 hubs, I think it is, so there is going to be 116 products auctioned each month and if you multiply that by the options that are offered each month and you get a very, very

big number that is very complicated to try and figure out what you are doing. So, I'm cautious, I think that is a barrier to competition."

Another respondent acknowledged how much complexity the new nodes added and although they were a larger organisation, they were nearly at capacity in terms of managing their models internally.

"Am I comfortable with the size of the FTR market and the way it is structured at the moment? I think with the new FTR nodes then that will probably be about the limit, otherwise it is just getting too complex for anyone to manage. Even the skilled practitioners are going to have to spend more and more time on it and we don't have any time. So, to allocate more time to something when I can't get a head count to do that, so we would have to find more time somehow or other to do that. Which means we have to build more complex models ourselves. So, you are getting to the point of dilution where it is actually getting to the limit of development."

Some respondents believed that the market is being made more complex which doesn't ultimately help the end consumers in New Zealand.

"I think, focus on simplicity rather than more complexity. There is a risk that it will continue to be made more and more complex for the purpose of serving people who aren't really either end-users of power or have any kind of physical presence in our market, e.g. foreign speculators. I don't really see that helping the end consumer in New Zealand."

Balance complexity with number of strategically placed new nodes

Some believed there was a balance that could be achieved which involved having a few more nodes, located in strategic locations.

"There are a number of suggestions, I think the greatest danger will be too much complexity. I think maybe one or two more nodes, particularly one focused around the middle of the North Island would be helpful without going to too many new nodes."

Making the market as complex as necessary

Others believed that there was a certain level of complexity that would have to exist for the market to serve its purpose. Organisations would have to commit to investing time and resources to upskill staff if they wish to participate in the market. Some respondents think the market should not fold or limit itself to meet the need of some organisations, rather participants should rise to meet the market.

"The fact that a lot of the incumbent players seem to resist the idea of increasing the market from the idea that it is too expensive for them to participate, but I think that is a really poor excuse and they should be making the market as complex as it needs to be to enable retail competition."

"A review of the process by which changes are made to the allocation plan, specifically remove the ability for existing participants to veto changes through a voting process, or at least defer that until after a cost-benefit analysis has been taken place. Increase the availability of FTR paths that are likely to support underwriting risks in other markets and products. Cost-benefit analyses

for any market changes shouldn't reflect the lowest common denominator costs. Currently participants in a voluntary market are able to undermine the cost-benefit analysis process because they have outdated systems and processes. But in a voluntary market the net economic benefit test shouldn't rely on the oldest technology or the highest cost participation it should be on the lowest cost. So, if undertaking a market change, the least cost participants should be the indicator of what the true cost is in a competitive market, everybody else should be forced to compete to come up to speed with that cost rather than cost incurred to incumbents from old technology in a market that they don't need to participate in and is entirely voluntary. That shouldn't be used to hold back market development"

■ Education, workshops and online learning resources

Many respondents mentioned the need for clearer information to be made available to educate those interested in purchasing FTRs or those new to the market.

Since there is significant variability in the size and knowledge levels of the potential participants for the FTR market, there needs to be a range of resources available to cater for these different organisations. Some organisations will need a very basic introduction and step by step guide to the market, whereas other larger organisations have the capacity and knowledge to be presented with more technical information.

Some respondents suggested workshops or training sessions would be an effective way to work through the information.

"There wouldn't be enough justification to run them [workshops] all the time, but I think if there was sort of one session a year or something where you could just say 'look here is an assessment or a review of the FTR market' or even the energy trader forum, which Energy News run, you know even something like that, by having a 101 of the FTR market by one of those types of sessions just to get a few more people understanding it."

"And do they educate people around it? No, they just assume everybody knows what they are doing when they start, which is a heroic assumption at best. Given the customers and the smaller retailers that we do hedge products for here, that is a heroic assumption."

"Workshop delivery is much better than getting lots of emails or information to read."

"I guess understanding of its benefits would be the first thing because we just haven't delved into it at all. Understand basically what some of its capabilities are but at the moment it appears to us the burden to reward is not quite in balance at the moment. Maybe some simple workshops or training sessions or something like that rather than written briefs. In the form of a half day workshop or something like that where people can explain the features and benefits of the market."

A few respondents suggested an improved FTR website to make accessing information easier. One respondent mentioned the website has definitely improved but still had room for improvement.

“I think workshops would be good actually, and more online resources and some information. So, I guess a one stop shop where you have information relating to FTRs rather than having to look through a whole lot of wholesale pricing data.”

“When I go to the FTR website, there is nothing compelling about it.”

■ Barriers to competition

A few respondents indicated that the FTR market is difficult to access. Some respondents put this down to the significant amount of resources organisations needed to allocate internally to participate in the market.

“For me it’s more about the complexity of the market and just having the resources within our organisation to do that analysis that is really required to do it some kind of justice. So that is really kind of the big thing. I don’t actually think the market is terribly accessible.”

“So, every time you do an FTR it starts off between two nodes, so the possible combinations in any one month between two nodes are up and down so therefore you have two different combinations. Then you add five and you get 42 different combinations, when you have 8 you have 112 different combinations and they have increased the auction frequency as well to attempt to offer more regular auctions, so people can dip in and out of the market more often. Well what you have actually done is made the thing going from slightly more complex to now quite complex and if I was a small retailer, I would be very scared of competing in that space.”

“For us we are a large consumer but making [product] is our core business not following electricity so if it was much simpler, easy to access, easy to understand type of market then that would help, but it just feels complex to me.”

One respondent highlighted the structural issues the FTR market faces - with the majority of the volumes of the FTR market residing with skilled participants who have the capacity and resources to participate.

“The idea behind the FTR market was really clear, it was to encourage and foster retail competition amongst both smaller retailers and larger ones in different parts of the country where those regional risks were quite high...but you have a bit of a weird problem, if you looked at the number of participants in FTRs then you could probably make the case that if it hasn’t changed then probably there is something wrong. The vast bulk of the FTR volumes go to significantly complex and advanced, skill wise, players - to gentailers and financial players too.”

While the FTR market was seen as complex, there was a perceived lack of adequate education and resources to compensate for this complexity, which was seen to make it difficult for smaller players.

“The trouble is the complexity has now increased and one of the challenges you have always with FTR from the very beginning is you have had an FTR manager who was very poor around educating people, they made a massive

amount of assumptions that everyone who was going to use FTRs were going to be industry practitioners, it's almost a paradoxical statement that you are trying to encourage retail competition amongst small companies who aren't necessarily experts."

"The FTR manager gives no indication of what the fair value of those options or what they are worth at any moment in time and so the information and education that comes out of the FTR manager is very poor."

A few respondents felt the balance of power remains with the bigger players in the FTR market. A few small players noted the difficulties some faced when seeking an organisation to buy FTRs on their behalf.

"We have found it difficult to access to date. We require a one on one relationship. At the moment we are going through an intermediary, EnergyLink to manage it, we need their experience. Our size was an issue, we are smaller and some of the larger players were not interested. Hopefully we can go through EnergyLink. It is difficult to establish relationships and contacts."

■ More frequent auctioning

A few respondents suggested that there should be more frequent auctioning of FTRs, with one respondent stating auctioning all products every month.

"The first one [suggestion] is an auction frequency that supports more active risk management through being able to trade positions in auctions."

"We should also be auctioning all of the products every month rather than just doing the sort of piecemeal approach we have at the moment."

■ Other suggestions

One respondent suggested having longer term FTRs.

"The term of them, having longer term FTRs of one to two years would be beneficial, currently I think they are kind of three months only, they are quite short term around 3-6 months, I'd have to confirm that, it's been a while since I looked at it actually. Having it for one to two years would then allow parties more confidence in using FTRs to price longer term, either directly to their customers for risk management purposes or in the hedge market."