

Memorandum



To: ARODG Members

From: Mike Davies/Richard Ford

Date: 29 March 2006

Re: Possible TEC Products and Bankability

This paper looks at possible TEC products which might be of value to wind farm developers in the period between grant of CEC and grant of long term firm TEC. It considers the respective advantages and disadvantages of each. Some of these products are available now (STTEC and LDTEC) but others described in here are concepts of the authors only.

Wind developers need certainty of income to justify the high initial capital cost of wind plant. The less certain any TEC product is, the less useful it will be to justify an investment case. With a connection date say ten years out, there are two impacts on value. The first is the reduced net present value of cash flows (time value of money effect) and the second is a major increase in uncertainty from being unable to negotiate a long term power purchase agreement until the project is close to being able to generate electricity. Interim TEC products that can give both nearer term revenues and sufficient certainty of output to allow earlier negotiation of PPA's could potentially address these problems.

STTEC

Short Term TEC was introduced under amendment CAP070 and gives generators rights to TEC for periods of 28, 35 or 42 days. Generators apply for STTEC and pay a fee for the product to NGET (they would not be paying TNUoS at that time). Blocks may be purchased at any time during the year and any number of times during the year without restriction. Access is to be granted by NGET where capacity exists and no constraint would be created or exacerbated.

For projects which are receiving offers ten or more years out, this is of limited to no value. It could need to cover several years of revenues, pending receipt of firm TEC. Because of its short term nature, at the point of investment there can be no certainty for equity or debt providers that STTEC would be available in the required amounts and thus no possibility of forecasting interim revenues. This means it would not be possible to negotiate PPA's using this product in advance of long term TEC becoming available.

Where it would potentially be useful is in providing incremental income in case where, for example, firm TEC was expected to be available 18 months after CEC becoming available (by which we mean the project actually connecting to the grid, from which point it could physically generate power. In such an instance the investment case would be made on the basis of the firm TEC date and any additional income would be exactly that - additional.

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In terms of bankability, STTEC adds very little to nothing. The period for which it is granted is too short to be considered from a project financing perspective and the difficulty of forecasting future STTEC availability makes this of no value from a debt perspective.

SNSTF

Short Notice Short Term Firm is a very similar product to STTEC, also allowing generators to acquire rights to TEC for periods of 28, 35 or 42 days. The difference between this and STTEC is that the level of short term TEC is not known until set, at short notice, by NGET. *[note – we were unable to find out exact details of this product and would welcome clarification from other members of the ARODG]*. As with STTEC, the short-term nature of SNSTF means that it cannot be taken into account in either the investment case nor a banking case for a wind power project.

LDTEC

Limited Duration TEC is effective from 1 April 2006 and was introduced under amendment CAP094 to the CUSC earlier this year. It is intended as a longer term product than either STTEC or SNSTF but still for periods of less than a year. It provides access from the date given until the end of the financial year in which it is issued, with no automatic right for the access rights to continue into the following financial year.

LDTEC is available in two forms – Profiled Block LDTEC (“PB LDTEC”) or Indicative Profiled Block LDTEC (“IPB LDTEC”). The first of these has a defined profile built into the offer terms which, once accepted, is binding on NGET. The second has the potential to offer generators greater access to TEC but with uncertainties as NGET initially give an indicative profile which is subject to change.

PB LDTEC is potentially of value when used in the period up to grant of TEC as it allows revenues to be forecast for this period, in addition to the TEC period. There is an apparent anomaly that PB LDTEC appears to always run to the end of a financial year rather than to the date of allocation of TEC, which would be a worthwhile alternative (assuming this is not permitted under the current PD LDTEC rules).

IPB LDTEC would be of much less value from a financing perspective, the problem lying in the risk of NGET changing the indicative profile over time. It may however be of more appeal to equity in allowing greater upside, depending on the equity view of downside risk.

Interim TEC

This product does not presently exist. The concept is that insufficient firm capacity may exist in advance of the firm TEC date to allow a generating facility to operate at full output but available TEC during such period may be more than nil. It may even start high and then fall as one or more other generating facilities are forecast to come on line. Reflecting this, it may be possible to provide an Interim TEC product (“ITEC”) which has a permitted maximum output profile. Depending on what this is, it may create sufficient incentive to allow projects to be built earlier than they otherwise would have without it.

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ITEC would be a firm TEC product subject to the capacity limits specified for various time periods. It is very similar in concept to PB LDTEC but with the difference that it could be for any agreed duration and would not be limited by the end of the financial year in which it is issued – it could run over several years, expiring on reaching the TEC date. A product such as this would considerably enhance the bankability of, and investment case for, a project during the period prior to grant of TEC. The benefit of it would be highly dependent on the level of TEC available during the interim period.

Potentially there is scope to have a second version of ITEC which would be the equivalent of IPB LDTEC, running off an indicative profile for the period. From a developer's perspective however, the uncertainties created by such a product over an extended time period would make this of very questionable use. Banks would value it little.

A concern raised in the Working Group on LDTEC was potential adverse impact on the availability of TEC itself, because this type of product reserves capacity on the system. We believe that this should not be a concern – ITEC would be intended to be a form of TEC and as such, it is reasonable that such a product, which morphs into TEC in due course, should be able to reserve capacity in this way.

Capped Interim TEC

This is another potential product which does not presently exist and which would require a CUSC amendment if considered worth pursuing. The concept of a Capped Interim TEC ("CITEC") would be a contract with an agreed number of MWh of annual production coupled with a capacity limitation. This would mean that NGET could constrain a project with CITEC during a year but if the result was that actual production fell below the CITEC MWh cap then, to the extent that the shortfall was due to constraint, there would be payments made by NGET to the generator. If, on the other hand, the generator was able to generate up to the cap despite curtailment then there would be no payments by NGET.

The CITEC cap could itself be profiled. As with the product described above, either a pre-set profile or an indicative profile are possible.

This type of product would give the generator comfort that they would be able to export the pre-agreed number of MWh each year, enabling them to form a better view about the expected economic return during this period. NGET would have confidence that they could curtail in times of high transmission usage to the extent agreed, potentially without payment.

Variations are possible on this structure. For example the generator and NGET, rather than agreeing a cap on generator output in the year, could agree a maximum amount of curtailment in MWh that would be permitted in the CITEC contract period without payment of curtailment amounts. This would enable NGET to manage risk better. We have a concern with this approach however that NGET would be motivated, in all circumstances, to use curtailment to the maximum as it would be a lower cost option than having Balancing Settlement Payments in the system.

This product may have adverse consequences for PPA counterparties as well. It adds uncertainty about potential output volumes during the CITEC period.

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Conclusion

Only products which provide certainty to a generator, in some form, have value from a financing perspective. The problem with both STTEC and LDTEC, together with their various derivatives, is that both are relatively short-term products lasting less than a year, whereas the "gap" generators may have to deal with for wind projects, between grant of CEC and grant of TEC, may be several years in the case of many projects.

An answer, if reliance is to be placed on products to cover this interim period, is the development of products that could bridge all, or substantially all, of this time gap. The two suggestions in this paper (ITEC and CITEC) could each potentially achieve this and provide worthwhile financial benefits to generators.