

Insights

TYPICAL TRANSACTION DOCUMENTS IN A (STANDALONE) BESS PROJECT-FINANCING

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SUMMARY

Further to our previous articles [on the market](#) and [sources of revenue for \(standalone\) project-financed BESS projects](#), this article considers the core transaction documents making up a project-financed BESS project and the similarity between these and the transaction documents commonly used in other renewable energy projects. Whilst there are many commonalities with these other project-financed renewable energy projects, there are also key differences – in particular in respect of revenue contracts and the nature and terms of these.

Below we briefly consider the transaction documents that are broadly similar to other (project-financed) renewable energy projects, and we then go on to consider in greater detail the relevant differences.

Project Documents (other than the RTMA!)

In terms of construction contract(s), there are broadly two approaches – (1) where all construction services are bundled into a turnkey EPC agreement or (2) where there are two construction contracts: a battery supply agreement (BSA) and a separate ‘balance of plant’ (BOP) agreement (this latter option often being taken where the battery supplier is either not willing or not able to provide the full scope of an EPC contractor). Similar to the other project-financed renewable energy projects, it will be important from both a technical and legal perspective to manage interface risk where a disaggregated approach is taken (often the answer is, at least in large part, hands on/active project management), and the sizing and obligation to pay liquidated damages being, as ever, a key consideration for the construction contract(s) and it will also be important that, as applicable, there is adequate credit support to meet the contractor’s maximum potential liabilities. In addition to scope of work, payment terms and liquidated damages, construction milestones should be reviewed in detail to ensure that these are sufficient/have sufficient contingency built into them to avoid unwarranted risk in respect of breaching any condition or other aspect of the grid connection or any other project authorisation.

In terms of key operations and maintenance (O&M) contracts, O&M is often undertaken under a long-term service agreement (LTSA), and there is likely to be significant interaction between the LTSA and the battery warranty. Whilst the battery warranty (typically 10 – 15 years in our experience) guarantees the materials and workmanship in connection with the battery and the performance levels of the battery (including limited “degradation” in respect of the battery’s capacity, round-trip efficiency – i.e. loss of energy between charging and discharging - and availability) subject to compliance with specified conditions (e.g. daily and total cycling count limits – i.e. limiting the number of times that the battery can charge/discharge; depth of discharge (DoD); temperature – extremes of operating temperature can increase degradation), the LTSA has a “wider” scope in maintaining the BESS project (with the scope of services varying on a project-by-project basis). In the usual manner, it will be important to ensure an appropriate scope of services for the O&M and service levels, any interface with construction, O&M liability caps (and any credit support needed in respect of O&M obligations and liabilities), service payments (and any indexing of the same) and term and termination rights. These are very similar considerations to O&M contracts in other renewable energy projects and, again in the usual manner, both equity and debt investors will be concerned to ensure that, to the extent possible, the cost of construction and O&M contracts is fixed/predictable and there is an ability to benchmark (and, if necessary, replace) underperforming O&M contractors.

Land rights are another familiar category of project documents – due diligence will confirm whether the BESS project has sufficient land rights, whether in the form of an owned freehold, a leasehold held or a (sufficiently certain) option in respect of either of the same, and whether there are any adverse easements or restrictions on the relevant title(s). In the usual manner, both equity and debt investors will want to ascertain that the terms of any lease are appropriate (e.g. term and termination, that the term of the lease is sufficient for the BESS project and that there are limited rights for the landlord to terminate the lease), and, if the project site does not abut a public highway, that there are sufficient access rights over surrounding land to ensure adequate access to the project site (i.e. avoid any “ransom strip” situation). The relevant land may well be located in proximity to a sub-station to minimise transmission losses, and as discussed in our previous article the geographic location of a standalone BESS project may well be a significant factor determining the revenue potential of that project.

Linked to the land rights are planning consents and grid connection agreements. (Standalone) BESS projects are subject to a planning process under the TCPA 1990, rather than a DCO process, and the grid connection agreement process is similar to any other renewable energy project – an application is made, an offer (hopefully!) given by the distribution network operator or transmission network operator (as applicable) and the offer will then be subject to any required negotiation, and the split of the works between ‘contestable’ and ‘non-contestable’ (i.e. between the elements of the connection works that can be competed, and undertaken by an independent connection provider, or in contrast must be undertaken by the relevant operator, or their agents/sub-contractors as the case may be) will, as usual, be an important consideration. There are significant commonalities between

BESS projects and other renewable energy projects in respect of land rights, planning and grid connection, and like many other renewable energy projects delays to grid connections are key issue for BESS projects in various stages of development (but conversely this probably, to some extent, protects the profitability of existing BESS projects on the electricity grid which may have more dated/inefficient technology).

Insurance requirements for BESS projects will also be familiar for those with experience of the approach to insurance in other (project-financed) renewable energy projects: construction period insurances constituted by construction all risks insurance, delay in start-up insurance (as a policy following the construction all risks), and third-party liability insurance; in the operations period, physical damage all risks insurance, business interruption insurance and third-party liability insurance. All these policies will have an agreed set of endorsements applied to them, likely to identify that the insurances are composite, the loss payee position, that any debt investors are not liable for premiums and have no duty of disclosure, non-vitiating and non-subrogation provisions, claims procedures, and provisions in respect of the acknowledgement of security interests over the insurances. As is also familiar from other (project-financed) renewable energy projects, there will be a broker's letter of undertaking given, again in the usual manner giving certain confirmations regarding the insurances including that they are in place, premiums are current, and endorsements applied to the relevant insurance policies. Again, project-financed (standalone) BESS projects are very similar in many ways to other project-financed renewable energy projects.

Finally, in respect of project documents, we note that management services agreements and any credit support agreements are likely to be very similar to other project-financed renewable energy projects (there may also be capacity market agreements depending on the specific BESS project). All-in-all, the project documents for standalone project-financed BESS projects appears very similar to other project-financed renewable energy projects but...

The route to market (and the RTMA)

...arguably the significant difference is with the "route to market" and any "route to market agreement" (RTMA). As with many other types of project, it's best not to concentrate on the acronyms – it's the substance of what these agreements 'do' that is important (the relevant contracts could be called revenue contracts, offtake agreements, RTMAs, optimisation agreements, market participation agreements, we've even heard reference to "PPA" though this would seem to be a misnomer in most situations where there is a standalone BESS project). The key difference between BESS projects and many other types of renewable energy project is the nature of the revenue. Excepting capacity market agreements (which are likely to only constitute a relatively small part of the BESS project's revenue stack), the revenue contracts in a BESS project tend to be short-term and sometimes uncertain as to the level of revenue they will generate. The route to market is, in our experience, the key consideration as to whether a BESS project is viable for project financing (assuming any grid connection has an appropriate date for such connection!). A typical revenue contract may be structured through an optimisation agreement whereby for a relatively

short period (often two to three years) a third party with significant experience of trading batteries in the electricity market (often, but not by any means exclusively, large electricity supply companies – many financial institutions and specialist energy companies are also key market participants) agrees to trade the BESS project's battery with a view to optimising/maximising revenue.

There are any number of variations to the fee structures involved but a typical RTMA may provide that the service provider (or “optimiser”) retains an agreed percentage of the BESS project revenue in exchange for its services optimising revenue. A key point of negotiation is whether the RTMA will “guarantee” a minimum revenue from the RTMA – a revenue “floor”. Such a floor transfers a material amount of market/demand risk to the service provider and inherently makes the BESS project more attractive to debt investors by creating a stable revenue source for the BESS project (subject to the usual considerations on creditworthiness / credit support) but is sometimes seen as excessively eroding value by equity investors (arguably service providers pricing floors with significant headroom to account for the significant volatility in the Great Britain electricity market and mitigate downside risk for themselves).

Key considerations when negotiating an RTMA include:

- a. **term and termination:** potentially including, in respect of termination, failure to meet agreed KPIs;
- b. **scope of services:** including how trading battery trading strategy is determined (and the level of developer involvement, active involvement by developers is perhaps more common in North America than Europe) and the markets that the battery can participate in to create its revenue stack. This may include any software that will be used to trade the battery;
- c. **service levels:** including compliance with law, good industry practice, battery operating manuals, the terms of the battery's warranty, any agreed battery trading strategy and any agreed KPIs;
- d. **payment provisions:** including any revenue split/revenue floor and (likely) the pass-through/reimbursement of any costs (including network costs) associated with running the system, which potentially includes the cost of providing credit support for market participation in accordance with any agreed battery trading strategy;
- e. **planned battery downtime:** including for planned maintenance, and how these interact with relevant agreed service levels;
- f. **force majeure / excusing cause provisions:** the scope of any force majeure definition will be important (in the usual manner) as these provisions are very likely to excuse contractual obligations and provide for termination in cases of extended force majeure (this is particularly important in certain circumstances, for example where the service provider is also the EPC contractor); and

g. reporting requirements and regulatory responsibilities: including because of the likely asymmetry in experience and ability to trade the battery, it will be important to ensure transparency and auditability of service provisions, especially where any agreed fee structure does not in itself ensure full alignment of revenue interests between the developer and the service provider.

However, whilst the key considerations set out above are themes common to many RTMAs, they are in no way an exhaustive list and there are any number of variations and structures used for the revenue contracts in BESS projects. As a rapidly developing area of infrastructure investment there are no 'standard'/generally accepted forms of RTMA (many RTMAs are often adapted/negotiated versions of the service provider's standard terms of business). RTMAs are relatively complicated documents, but they are also critical (as is any schedule to the loan facilities agreement which sets out principles for any future/replacement RTMA) – in these types of project finance transactions, the "magic" is very much in the negotiation of "bankable" RTMAs and any agreed principles in respect of future/replacement RTMAs: are the debt investors comfortable with the projected revenue profile? Whilst some of the themes may be familiar to those with experience of other renewable energy project finance transactions, BESS revenue contracts are critical for investors to understand in a rapidly developing market.

But the above is not to say that there is only one way of agreeing revenue contracts for BESS project. We are seeing an increasing (though not yet large) uptake of tolling agreements – effectively a lease of the BESS project for the exclusive use of the renting party. The key advantage of these is that they can provide revenue certainty over potentially longer durations – downside/market risk is mitigated (though of course the upside potential is also likely given up to the renter). Any longer-term revenue certainty aspect of a tolling agreement also likely makes the relevant BESS project easier to finance from a debt investment perspective. A good recent example (August 2024) of a tolling agreement is the seven-year tolling agreement entered into between Shell and Penso Power in respect of the 100 MW/330 MWh Bramley BESS. However, whilst we do expect that tolling agreements will continue to gain interest, what is perhaps more instructive about this alternative approach is that it potentially 'bridges' financing issues. Debt investors in project finance transactions are often not comfortable with significant market risk/variable revenues and, whilst we note that the Bramley BESS transaction had a future joint venture element so this particular transaction may not have been (primarily) driven by financing considerations, it appears clear to us that with a rapidly developing and growing sector with greater liquidity and competition in the market there is likely to be significant evolution and innovation in revenue contracts which should hopefully help build a (more solid) bridge between the large amounts of capital that wants to invest in these projects (not least for their ESG credentials!), but often cannot because of the current nature of the revenue contracts and potential BESS projects (though we discuss in our next article the challenges for future BESS projects, including in respect of supply chain).

There are, of course, alternative solutions to this 'gap' that arguably exists between potentially available capital and BESS projects that want debt financing. For example, BESS projects could be

financed at a holding company level where a diversified portfolio of other (likely renewable energy) assets could mitigate market risk that debt investors see in BESS projects. This is not to say that BESS projects with short-term RTMAs without revenue floors are not financeable, some BESS projects are financed on the basis of shorter-term RTMAs without revenue floors, but there is likely to be less competition to finance these projects and the financing terms of these projects are likely to be less attractive to equity investors than the terms available to BESS projects with revenue floors and/or longer-term RTMAs.

Finance Documents (other than the facilities agreement)

Having discussed the project documents in a typical project-financed (standalone) BESS project above, we briefly discuss the typical finance documents for such a project below. We do not discuss considerations in respect “equity documents” (broadly any SHA, equity subscription obligations – however documented – and any credit support provided in respect of the same) in any material detail in this article because in our experience these do not differ from considerations in other forms of energy/infrastructure project financing: does the governance work in practice; are minority interests properly protected (not a particularly key consideration for debt investors, but arguably mitigating the risk of future disputes) and, key for debt investors, are any equity injection obligations and the credit support that backs them “bankable”. Many of the finance documents are also likely to be familiar to those with experience of project-financing other energy/infrastructure projects. Setting aside the facilities agreement for the moment (it is discussed further below), the key considerations after often very similar on a BESS project as for other projects:

1. **intercreditor and subordination arrangements:** appropriate ranking and subordination of debts (and, where applicable, security), payment restrictions and turnover provisions (for default scenarios), restrictions on the amendment of transaction documents and enforcement actions (in particular in respect of subordinated documents/debts), control of any enforcement actions (including any ability or otherwise of hedge counterparties to vote in certain situations) and the ability of any security agent to release security and claims in any enforcement scenario;
2. **hedging agreements:** usual considerations around restricting the ability of hedge counterparties to terminate other than in respect of an agreed list of appropriate scenarios and prohibitions on hedge counterparties taking any separate/additional credit support from the borrower (outside of the security agreements);
3. **security agreements:** again, usual considerations around obtaining all assets fixed and floating security, with a particular focus on ensuring control over project bank accounts and a ‘bullet proof’ share charge over the shares in the borrower; and
4. **direct agreements:** further, usual considerations on preventing the precipitous termination of key project documents and preventing (third person) material project parties from gaining undue leverage/retaining any ability to ‘upset’ any secured parties’ priority and control in default

scenarios, including negotiations on suspension periods, the ability to suspend provision of works/services and the scope of restrictions on the actions of the relevant material project party.

Other finance documents may include fee letters (again, the considerations on these – amount, timing, and position on gross up – are the same as other types of projects) and accounts agreements (to the extent the relevant provisions aren't included in the facilities agreement), but key considerations on these are, as above, largely 'technology-agnostic'. As such, the finance documents for a project-financed BESS projects are substantially similar in many ways to other project-financed energy/infrastructure projects, but there are particular considerations around facilities agreements in respect of BESS projects which we discuss briefly below.

The facilities agreement

Whilst the facilities agreement for a project-financed BESS project is similar to those for other project-financed energy/infrastructure projects, there are certain nuances to these facilities agreements (we do not consider CTAs separately in these articles as they aren't common in BESS projects and, as many readers will be familiar with, are primarily structured to include the covenant package you would expect from the facilities agreement across various debt facilities).

Some of these nuances are based on the type of technology that BESS projects are – the facilities agreement including covenants are grid connection agreements and capacity market agreements (including defaults in connection with the termination of the same or unconsented amendments to payment provisions in respect of revenue under the capacity market agreements), and restrictions on (approved) counterparties under RTMAs.

Other nuances are perhaps more closely to the nature of the revenue contracts, facilities agreements (sometimes) including schedules in respect of key terms of/principles in respect of future/replacement RTMAs, cash sweeps being common to mitigate risks (to the BESS project and the debt investors, including refinancing risk, default risk and liquidity risk – with available cash going to prepay debt rather than to distributions to equity). In our experience we have also seen financial ratios adapted to reflect the warranty period of the battery (for example, an "LLCR" being adjusted to assume full amortisation over the battery warranty period rather than across the period to the actual final maturity date, though this in practice makes the "LLCR" a misnomer and more akin to a PLCR). There are also common wider commercial impacts that the nature of the revenue contracts has including often limiting the leverage that lenders are willing to advance, increasing margins and the inclusion of margin ratchets to encourage refinancing as soon as practicable after construction completion. We also have experience of a number of transactions where contracted and uncontracted/spot market revenue are treated differently for the purposes of financial ratios (effectively de-rating the value of projected uncontracted/spot market revenue). Again, many of these mechanisms will be familiar to those familiar with project-financing other types of energy and infrastructure projects.

Project-financing a (standalone) BESS project is a “variation on a theme” – those familiar with project-financing other types of energy and infrastructure projects will recognise the solutions often adopted to make these projects “bankable”. Our experience is that the RTMAs are the key difference with BESS projects – equity investors need to evidence to debt investors, through a combination of optimised financial models, an appropriate covenant package specific to BESS projects and market reporting obligations that reflect the future revenue potential, dynamism, and development of electricity markets in Great Britain. As discussed in our previous articles in this series, the revenue stack in BESS projects comes from a number of sources and the relative importance of these has varied significantly in the recent past and will continue to vary, including because of the new services that BESS projects are able to deliver and new BESS projects join the electricity grid. Other market factors such as “skip rates” (as we discuss in our next article in this series) and increased use of behind the meter installation of batteries in offshore wind projects will also affect BESS project revenues and it is important that potential debt investors have the best understanding of the Great Britain electricity market, and how the relevant BESS project will interact with it, as reasonably possible. As ever, the facilities agreement on any specific BESS project will need to accurately reflect the concerns of debt investors on that project, which concerns in our experience primarily revolve around the RTMAs and market risk.

Conclusion

In summary, the transaction documents for project-financed BESS projects will, in general, be familiar to those with experience of project-finance energy and infrastructure transactions subject to that it is the revenue contracts/RTMAs and the volatile and developing nature of the electricity market that drives the idiosyncrasies of the transaction documents for these projects. In our next article in this series we scan the horizon on how the electricity market is changing vis-à-vis the participation of BESS projects discuss a number of factors that may drive the speed of the rollout of BESS projects in Great Britain and discuss the differing considerations where BESS projects are co-located with renewable energy generation assets.

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