

ESEM Contract Co-Design Consultation

Friday 2 October 2026

Bulk energy: Regional Reference PPA

Q1. Is the proposed contract structure suitable for a range of bulk energy technologies?

- **Suitable for wind and solar, with technology-specific indices.** Atmos considers the RRPPA structure suitable for wind and solar. We support separate wind and solar Reference Fleets: the two have very different generation shapes, and a combined index would not hedge either technology adequately.
- **Better than the DWA swap.** Indexed settlements are considered *more* bankable than the fixed-volume obligation under the DWA swap, which would have required weather-dependent sellers to defend a volume they cannot control.
- **Fleet depth may limit wider use.** The structure could in principle extend to other variable renewable technologies. In practice, it needs enough fleet depth to produce a stable, representative index, which is likely to limit it to wind and solar in most regions (and possibly to wind only in Tasmania). The WG should clarify how ESEM agreements might (or might not) support assets within regions which lack fleet depth.
- **Intra-regional variation is material.** The RRPPA hedges against a regional average shape. It does not reflect the location of an individual project (e.g. north vs south Queensland, western Victoria vs Gippsland). New projects in less favourable resource locations, or with different turbine or tracker technology, may systematically under- or over-perform the index. That creates basis risk on two fronts: intra-day shape and annual capacity factor.
- **Timing of valuation.** Sellers will price and finance the RRPPA at final investment decision (FID), or earlier, but the first Calculation Period will start several years after Commercial Operations Date. Proponents must therefore forecast the composition and performance of a future Reference Fleet 3–5+ years out. This adds material modelling cost (consultant market and index studies) and uncertainty to the bid price, particularly if the index is not stable. To reduce this cost and asymmetry, the WG/ESEMA should publish historical back-casts of the RPI by region and technology, an index calculation methodology, and a predictable change process (for example, it could be analogous to the annual MLF publications).
- **Risk of homogeneous new build.** Because the RRPPA incentivises sellers to minimise exposure by matching the reference shape, the design may encourage new projects that replicate the existing fleet profile rather than adding temporal diversity (e.g. wind with stronger evening or winter output, or east-west tracking solar). The WG should consider whether this conflicts with system needs over the long term and/or conflict with other locational price signals.
- **Hybrid and co-located projects.** Atmos supports the WG's work on hybrids. A co-located solar + BESS project (including DC-coupled) should be able to hold both an RRPPA (solar) and a Dynamic ToD Block Spread Swap from the same site. Eligibility should not depend on separate metering or registration of each technology. The WG should also define how hybrid

units are treated in (or excluded from) the Reference Fleet, including project eligibility criteria (e.g. AC vs DC-coupled hybrids, ratio of BESS to VRE components) and sub-metering requirements.

- **Eligibility of existing and brownfield assets.** The WG and NEMRIT should confirm how repowering or expansions of existing projects might be factored into the scheme.

2. Does a cap on spot price exposure aligned to the strike price of the firming product (e.g. \$600/MWh) appropriately balance risks for sellers and buyers?

- **A cap is essential.** Atmos strongly supports a cap on the spot price exposure. Without one, a seller whose own output is below the Reference Production Index (RPI) during high-price intervals (e.g. because of a significantly different generation profile, a plant outage, local network outage or constraint while the regional fleet keeps generating) is exposed up to the Market Price Cap. As we have seen with current ASX traded projects, lenders will not finance uncapped merchant exposure on derivative products that are de-linked from physical asset risks – thus a cap will be critical to bankability.
- **Aligning with the firming strike may be logical.** Setting the cap at the firming product strike lets buyers combine the RRPPA and with \$600 cap products into a coherent hedge to manage risk. However, this is dependent on a liquid market of \$600 caps being available (which is not currently the case). Consideration should be also given to whether the cap price is a defined value (e.g \$600), or linked to a market definition like the Administered Price Cap (the notional basis of the \$600).
- **Trade-off between \$600 and \$300.** A lower cap (\$300) reduces seller downside and lets sellers keep more merchant revenue above the cap on their own output. However, it also cuts the hedge value to buyers and so the Fixed Price they will pay. A \$600 cap keeps more hedge value, supporting a higher and more bankable Fixed Price, while still bounding tail exposure. On balance Atmos supports \$600. We ask the WG to publish price-duration analysis above \$300 and \$600 by region and technology to help all participants understand value transfer.
- **Interaction with the seller's physical position.** The cap does not limit a seller's merchant upside. A wind or solar seller generating above the index during morning or evening peaks keeps the spot revenue on its output. Its settlement liability to the buyer is capped at $(\$600 - \text{Fixed Price}) \times \text{Notional Quantity}$.
- **Residual exposure is still material.** Even with the cap, an extended idiosyncratic outage during a high-priced week could create a significant settlement liability (see Q10). This reinforces the need for a Force Majeure / major-event mechanism (Q11) for the products to be bankable.

Q3. Is a negative price provision required for the proposed contract, noting it is settled against the Reference Fleet's performance and LGCs/REGOs are not included in the swap? If so, is a volume knock-out (no settlement during negative price periods) or a \$0 price floor more preferable?

- **Atmos accepts that a negative price provision is required.** Negative price intervals are already frequent in the NEM, particularly during solar hours, and are expected to be an enduring feature as renewable penetration grows. Atmos understands buyers need a provision so they do not pay the Fixed Price plus the absolute value of the negative price down to -\$1,000/MWh. However, Sellers need protection for the same reason: to avoid exposure to a significant number of negative price events where output is required to be curtailed unpredictably. The provision should be designed with both risks in mind, not only the buyer's.
- **Atmos's preference is for no floor, or a floor below \$0.** Without a floor, a seller generating during negative price intervals is hedged on the index volume. This matters where it keeps generating to earn LGC/REGO value, to meet dispatch or minimum generation obligations, or while responding to curtailment. A floor below \$0 (e.g. referenced to a certificate value) would keep most of this protection while still limiting buyer exposure. Lower revenue volatility would widen the pool of debt and equity investors, including investors with lower return requirements. That lowers the cost of capital and the Fixed Price bid into the ESEM, which ultimately benefits buyers and consumers.
- **A \$0 floor may not be sufficient.** With a \$0 floor, sellers carry the full negative price on any output generated in those intervals. That exposure is growing and hard to forecast over a 10–15+ year horizon, and may well be exacerbated ESEM auction volumes driving an oversupply relative to pure market signals. Lenders are likely to size debt conservatively against it, reducing the bankability benefit of the contract; and equity investors will demand higher returns that compensate for such risk.
- **Atmos favours a mechanism for maintaining contract volumes during negatively priced periods.** As explored by the WG, one approach to this could be to use a measure of the reference fleet such as UIGF during negatively priced periods. This would incentivise desirable merchant behaviour (VRE switching curtailing during negative prices) while maintaining contract volumes and revenue predictability which are important from an investability perspective. Over the long run this may help drive improved spot market outcomes with lower incidences of negative pricing.
- **A volume knock-out will materially limit both debt and equity investor pool.** It removes contracted revenue during periods when sellers are most exposed and leaves them fully exposed to negative prices on their own output. While this position may be acceptable to some lenders and investors, Atmos expects this would materially reduce the pool of interested capital. This will raise funding costs and come to a point of natural constraint once a company reaches a certain size.

Q4. Does the proposed design of the Reference Production Index appropriately balance risks for sellers (primarily basis risk) and buyers (long-term value of the product)?

Risk balance (select one):

- Strongly favours sellers
- Somewhat favours sellers
- Appropriately balanced
- **Somewhat favours buyers**
- Strongly favours buyers

Additional comments:

- **Overall.** Atmos broadly supports an RPI based on actual dispatched generation, subject to the refinements below. As drafted, most basis risk (shape, capacity factor, MLF, congestion and curtailment) sits with sellers, some of which is risk that is difficult or impossible for Sellers to manage or hedge in-market.
- **Regional granularity.** While not without challenges, NEM regional indices are appropriate for most regions, as sub-regional indices would reduce liquidity and overall effectiveness of the scheme. However, we encourage the WG to publish analysis of within-region variability against the proposed index.
- **Fleet threshold.** Atmos supports including all projects ≥ 30 MW, so the index reflects the commercial-scale assets buyers are hedging against.
- **Nameplate definition.** The Nameplate Capacity used for the Reference Fleet must be defined consistently and transparently. For solar, AEMO's Generation Information data can mix DC and AC ratings, and DC/AC ratios differ widely. Atmos recommends using a consistent AC basis, such as the registered maximum capacity or the connection agreement export limit and publishing these values annually.
- **Definition of 'Operational'.** Clear rules are needed for: projects in commissioning or at hold points (e.g. excluded until they reach full output or registration completion); projects on extended outage (e.g. excluded after a defined period); and retired or retiring plant (removed from the year-ahead fleet).
- **Contribution cap.** Atmos supports the Regional Factor (RF) cap to stop any single project skewing the index. 10–15% is a reasonable starting point for most regions, with higher values likely needed for thinner fleets (e.g. Tasmania). The RF for each region and technology should be fixed or follow a transparent, pre-published methodology. However, because sellers are rewarded for beating the reference shape, the design may encourage new projects that replicate the existing fleet profile rather than adding temporal diversity (e.g. wind with stronger evening or winter output, or east-west tracking solar). The WG should consider whether this conflicts with system needs over the long term and/or conflict with other locational price signals. For instance, perhaps a sub-regional cap should be considered, which could be aligned with transmission capacity availability or other policy objectives.
- **Regional homogeneity with the reference fleet.** Similar to the contribution cap for single projects, the WG should consider the effect of sub-regional project clustering skewing the

reference trace over time. This may be particularly exacerbated by the timing and sequencing of REZ and transmission development, which will determine where projects can actually be sited.

- **Limit year-to-year changes.** Changes in fleet composition, such as a wave of new large projects at lower-resource sites, could cause step changes in the index capacity factor. The WG should consider limiting how far the index or fleet composition can move in a single annual reset. Alternatively, it should confirm with analysis that the RF cap already provides sufficient stability.
- **Annual reset and transition.** Annual reset is appropriate relatively predictable, stable and transparent. Transition rules must be clearly specified so existing contracts continue to settle smoothly against the updated fleet.
- **Transparency.** Atmos strongly supports real-time publication of the RPI to support secondary trading. It also supports publication of the calculation methodology, input data and the treatment of AEMO data revisions.
- **Idiosyncratic network events.** A project may be offline because of a local network outage or constraint while the region is windy or sunny. This may lead to significant basis risk with the reference trace, can cause large 5-minute revenue gaps which do not meet the trigger for FM or insurance events, but which nonetheless need to be managed. The cumulative working capital impact falls hardest on smaller independent proponents. Relief for prolonged network-caused unavailability should be considered under Q11.

Shaping: Dynamic Time of Day Block Spread Swap

Q5. Does the proposed approach to determining charge/discharge periods on a day ahead basis, using residual demand calculation, appropriately balance operational risks/simplicity with long-term value?

- **Support in principle.** Atmos supports the design of dynamic, day-ahead blocks based on forecast Residual Demand rather than fixed time-of-day blocks. This should give a more durable hedge to Buyers as the timing of the daily trough and peak changes, while still being operationally manageable for Sellers.
- **Use unconstrained forecasts.** The wind and solar terms in the Residual Demand formula should use unconstrained availability forecasts (UIGF) rather than dispatch forecasts. Dispatch forecasts reflect participants' bids and could be influenced by portfolios with large semi-scheduled fleets.
- **Clarify the demand definition.** The WG should confirm (a) whether 'Forecast Solar PV Output' means utility-scale solar only, given operational demand is already net of rooftop PV, to avoid double-counting; and (b) whether operational demand can be influenced by parties with large controllable behind-the-meter or VPP portfolios, on either the buy or sell side.
- **Regional flows.** Regional Residual Demand does not capture interconnector flows, which increasingly set price outcomes (e.g. SA and VIC). The WG should expand on the initial work done to test how well Residual Demand correlates with Predispatch and Dispatch prices over time, including as storage penetration grows and flattens the price shape, with a view to understanding the situations where Predispatch and Residual Demand deviate strongly

- **State-of-charge feasibility.** The nomination rules (up to two charge and two discharge blocks, each ≥ 30 minutes, each summing to the Shaping Duration) should also guarantee that the block sequence can be physically delivered by a storage asset. Cumulative discharge should not exceed cumulative charge at any point in the Daily Shaping Period, unless the rules explicitly assume a starting state of charge. Otherwise Sellers will be exposed to un-hedgeable blocks.
- **Cycling and warranty.** Atmos understands the product implies about one equivalent full cycle per day, which is consistent with typical OEM warranty and degradation assumptions. The WG should confirm this and ensure future changes to nomination rules cannot raise implied cycling.
- **Standard durations.** Atmos supports a small set of standard durations (e.g. 2, 4 and 8 hours) to support liquidity. Sellers should be able to contract part of an asset's capacity or duration, e.g. a 4-hour asset selling a 2-hour product (and vice versa) to encourage competition and liquidity. It should be up to Sellers to manage how it defends the contract duration.

Q6. Does the use of AEMO's forecast data to determine shaping periods result in any material risks to the useability of this contract over the long-term?

- **Methodology change risk.** Changes to AEMO's forecasting methods or published data sets (e.g. pre-dispatch, UIGF, demand forecasting) could materially affect settlement over a 10–15+ year tenor. Any change affecting ESEM contracts should be subject to consultation and impact assessment, with a documented fallback hierarchy if data is late, unavailable or revised.
- **Specify the forecast run.** The contract should name the exact AEMO forecast run and version used to publish the 16:00 nominations (e.g. the latest pre-dispatch run available at a set cut-off), so outcomes are reproducible and auditable for settlement.
- **Valuation at FID.** Market participants and lenders usually value assets using consultant price curves built on median or reference weather years. Valuing this product requires modelling (a) the forecast-driven block selection, (b) forecast error relative to actual price outcomes, and (c) weather variability around median years. Actual weather outcomes could differ materially from the assumptions used to value the contract, adding risk and cost to pricing.
- **Publish a back-cast.** To help sellers, buyers and lenders value the product consistently, the WG/ESEMA should publish the nomination algorithm and a historical back-cast of nominated blocks and realised spreads by region and duration.
- **Structural drift.** As storage builds out and flattens intra-day spreads, the link between forecast Residual Demand and actual high/low price periods may weaken. The contract should include a clear, consultative review process, not unilateral change, if the determination method needs updating.

Q7. Does the proposed approach of determining nominations at 4pm on a day ahead basis pose any material operational risks?

- **Generally workable.** A 16:00 day-ahead nomination gives more than 12 hours' notice, which is operationally workable and supports trading and hedging decisions. However, the WG should consider whether 15:00 is more suitable to allow for overlap with an open ASX market which may help participants make financial market hedges or positions ahead of the next day, post nomination.
- **Timing relative to the bid price-band lock.** NEM price bands for the next trading day are fixed at 12:00 the day before. Nominations published at 16:00 arrive after this, so storage operators can only respond to the nominated blocks by rebidding volumes across pre-set price bands. The WG should consider publishing nominations before 12:00, or confirm that rebidding will be allowable under the rules to give sellers enough flexibility.
- **Forecast horizon error.** Blocks nominated at 16:00 may cover periods up to about 41 hours ahead (to 09:00 two days later). Forecast error for the later blocks, especially the next-morning peak, will be larger. Under the draft risk allocation, Sellers must still defend nominated blocks that turn out to be poorly aligned with actual prices. The WG should quantify this and consider whether a limited update (e.g. overnight re-nomination of the morning blocks) is worth the added complexity.
- **No response to evening information.** Participants cannot adjust the following day's nomination based on evening price outcomes. This is acceptable given simplicity will benefit what is already a complex contract for Sellers (and lenders) to manage.

Q8. Does the proposed Daily Shaping Period that commences at the Trading Interval ending at 09:05 and finishes at the Trading Interval ending at 09:00 the following day pose any material operational risks?

- **Mismatch with the NEM trading day.** The Daily Shaping Period does not line up with the NEM trading day (04:00–04:00) or the weekly settlement boundary. Clear rules are needed for periods that straddle two trading days or two settlement weeks, and for the 09:00–09:05 boundary interval, to avoid disputes. Atmos suggest it could be simpler to align with NEM trading day – which may also assist with integration of these contracts into existing trade entry and settlement systems.
- **Market time and daylight saving.** The contract should confirm that times are in NEM market time (AEST, no daylight saving). In summer, 09:05 market time is 10:05 local time in NSW, VIC and TAS (10:35 in SA), which moves the boundary relative to local demand and solar patterns.

Firming: \$600 cap

Q9. Is a \$600 cap, in comparison to a \$300 cap, appropriate to support the entry of new firming assets? If not, why?

- **Supported.** Atmos considers a \$600/MWh strike a reasonable balance between buyer protection and the premium sellers need.
- **Rationale.** Compared with a \$300 strike, a \$600 strike lets the seller keep spot revenue between \$300 and \$600, and payouts occur less often. This reduces the premium needed for the same project economics. It also better reflects the cost of sustained firming (e.g. gas peaker SRMC) and the risk of extended low wind and solar periods ('dunkelflaute').
- **Alignment with reliability settings.** \$600 matches the current Administered Price Cap. Once the Cumulative Price Threshold is breached and the APC applies, cap payouts stop, which limits both seller liability and buyer exposure during prolonged high-price events.
- **Fixed or linked strike.** The WG should consider whether the strike should be a fixed \$600/MWh or linked to the prevailing APC, which may change through future Reliability Standard and Settings Reviews. A linked strike keeps the product coherent with the market framework over a long tenor, but adds valuation uncertainty. If the strike is fixed, the change-in-law provisions should address material changes to the MPC, CPT or APC.
- **Duration and storage.** The product sheet notes that fully defending the cap up to the CPT requires about 8 hours of continuous output at the contracted level. 2–4 hour batteries can therefore only sell a derated contract capacity. The tender design should allow sellers to set their own Contract Capacity relative to installed capacity, and the WG should confirm the product is not intended to exclude storage.
- **Secondary market liquidity.** The \$300 cap is the established ASX and OTC standard. A \$600 strike may split liquidity unless an exchange-traded or standard OTC \$600 product develops. This should be considered in MMO design (Q13). Buyers can still combine ESEM \$600 caps with \$300 caps bought in the market.

Common Contract Features

Q10. Are there any concerns with the proposed weekly settlement approach, aligned to the AEMO settlement calendar?

- **Supported in principle.** Weekly settlement aligned to AEMO's calendar matches the timing of sellers' physical spot revenue and contract payments and limits the build-up of credit exposure.
- **Working capital under stress.** Weekly settlement means a single adverse week lands in full. For example, an RRPPA seller with 100 MW of Contract Capacity, an average index of about 0.35 and a Fixed Price of about \$80/MWh could face a settlement liability of about \$3 million in a week of sustained prices at or above \$600/MWh while its own plant is offline. Under the \$600 cap, a seller unable to generate could face multi-million-dollar hourly liabilities at the MPC until the CPT is reached. The WG should publish worst-case weekly and monthly settlement scenarios for each product so sellers and lenders can size liquidity facilities.
- **Credit support.** Credit support requirements between the FME and sellers should be proportionate, based on standard terms and preferably allow netting across a seller's ESEM agreements. Otherwise the cost of bank guarantees will add to bid prices.
- **Data revisions.** The contracts should specify how AEMO preliminary, final and revised settlement data, and any restatement of dispatch data used in the RPI, flow through to ESEM settlement.

Q11. Are alternate approaches to manage Force Majeure risk exposure (outside of the contracts) required to support the entry of new assets?

- **Yes, this is critical for bankability.** Without an adequate FM / major-event mechanism, the ESEM contracts are unlikely to be bankable for project-financed assets. The majority of NEM investment has been financed on physical, asset-backed PPAs with asset-specific FM relief. Lenders (and equity) will require this relief to ensure it is investable, especially if these contracts are material to their portfolio. This also applies to more recent product innovations, such as virtual tolling derivatives, which still maintain a level of relief to project specific events.
- **FM must be managed at the ESEM level.** A fungible financial contract has no link to the physical asset, so FM risk cannot pass to downstream buyers. Atmos suggests it is more efficient for the ESEMA to manage it centrally, across a diversified portfolio, than for each seller to price it separately.
- **Buy-back alone is not enough.** Relying on sellers buying back positions from the market or the ESEMA leaves them exposed to buying back at stressed prices during the very event causing the outage. If buy-back is part of the solution, the ESEMA should offer it at a transparent, pre-defined price (e.g. a published mark-to-market methodology without punitive spreads).
- **Options to consider.** Including, alone or in combination:

- a pooled insurance mechanism administered by the ESEMA, with premiums funded from contract cashflows;
 - a levy on contract volumes to build a reserve fund;
 - suspension or reduction of Notional Quantity for defined, verifiable relief events (e.g. prolonged transmission or connection outages outside the seller's control, AEMO directions, government intervention, etc); and
 - a right to close out affected positions at a pre-agreed price.
- **Include major non-FM risks.** Significant risks such as extended outages from major equipment failure (e.g. main transformers) or prolonged network outages may fall outside FM but cause large settlement exposures.
 - **Build it into the ESEM framework.** Atmos prefers FM protection to be built into the ESEM legislative and contract framework rather than a separate government scheme, which could be exposed to future political or legislative change over a long tenor.
 - **Pre-COD risks.** The proposed Project Development Agreement, and the gap between COD and the First Calculation Period, should include proportionate milestone and delay provisions so that development and construction-phase FM or delay events do not trigger disproportionate consequences.

Overarching Feedback

Q12. Do the proposed contract structures achieve the Working Group's Terms of Reference and perform well against the identified evaluation criteria?

	Very poor	Poor	Medium	Well	Very well
Bulk energy: Regional Reference PPA					
Shaping: Dynamic Time of Day Block Spread Swap					
Firming: \$600 cap					

Additional comments:

- **Overall.** The direction of the contract design is positive, but fundamental details remain unresolved or not detailed.
- **Bankable and investable.** Not yet demonstrated for the RRPPA and shaping swap. Bankability and investment attractiveness depends on resolving the negative price mechanism and the FM / major-event relief; and on RPI design certainty at FID.
- **Simple to value.** The RRPPA and shaping swap are novel and need forward modelling of fleet composition and forecast-driven blocks. Publishing back-casts, calculation code and data is essential to meet this criterion.
- **Efficient at allocating risks.** Systemic volume and shape risk sit correctly with sellers. However, some risks currently allocated to sellers (network-caused unavailability, index composition changes, forecast methodology changes) are not issues sellers are best placed to manage.
- **Adaptable to the future market.** Over a 10–15+ year tenor, the Master Agreement must deal robustly with changes to reliability settings (MPC, CPT, APC), NEM regional boundaries or regional reference nodes, and possible congestion management or locational pricing reform. Standard AFMA Australian Electricity Addendum provisions may not be enough on their own for contracts of this tenor and should be reviewed with this in mind.
- **Price indexation (tender design).** Although outside the WG's scope, the option of a Fixed Price or Contract Price schedule with full or partial CPI indexation will materially affect bankability and bid prices. We ask the WG to recommend that NEMRIT keep this option.

Q13. Are there any concerns with the ability of the contract structures proposed to be subject to a Market Making Obligation (MMO) in the future?

	Significant concerns	Some concerns	Neutral	Expect contracts to perform well	Expect contracts to perform very well
Bulk energy: Regional Reference PPA					
Shaping: Dynamic Time of Day Block Spread Swap					
Firming: \$600 cap					

Additional comments

- **Interaction with contract recycling.** The relationship between the MMO and the ESEMA's contract recycling program needs to be clearly defined, so the two support rather than crowd out each other and resale volumes are predictable.
- **Liquidity preconditions.** A functioning MMO needs secondary market depth, which needs broad participation. That depends on resolving the negative price mechanism, FM and index design, and on real-time publication of the RPI and nominated blocks.
- **Standardisation.** To be market-made, each product needs a small number of standard variants (e.g. regions, technologies, durations and standard tenor strips such as quarterly or calendar-year). Too many variants will fragment liquidity.
- **Novel products.** The RRPPA and shaping swap have no current exchange-traded equivalent. Early MMO obligations may need wider spreads or smaller volumes while price discovery develops. The \$600 cap is closer to existing products, but its strike differs from the \$300 ASX standard.
- **Access for IPPs.** The MMO and recycled contracts should be open to IPPs as buyers as well as sellers, e.g. to firm and shape their own contracted portfolios or structure products for C&I customers. This supports broader liquidity and competition beyond vertically integrated gentailers.

Q14. Will the proposed contract structures, in conjunction with other risk management contracts, such as flat swaps, evening peak swaps or caps, be effective for buyers (e.g. retailers, large loads, etc.) to manage financial risks?

- **Yes, as a package.** Together, the RRPPA, the Dynamic ToD Block Spread Swap and the \$600 cap should give buyers diversified bulk energy exposure, reduced single-asset volume and curtailment risk, a hedge against intra-day volatility, and protection against high-price events. Combined with flat swaps, peak products and \$300 caps, this can approximate a firm, load-following hedge.
- **Enablers.** A liquid secondary market, a well-functioning contract recycling program and an effective MMO are all needed for buyers to use the products efficiently.
- **Residual buyer basis.** Buyers will still carry basis between their load shape and the combined reference and block shapes. This is appropriate, since buyers are best placed to manage their own load risk, but it should be recognised in ESEMA resale pricing assumptions.
- **Importance for sellers.** Buyer appetite for recycled contracts directly affects ESEMA resale value and so the long-term sustainability of the scheme. Designing products that *both* buyers and sellers value is critical.