



UK Power Reserve is the leading independent developer and operator of smart, flexible power generation in the United Kingdom. Founded by energy experts and investors in 2010, UK Power Reserve combines a specialist team and a portfolio of flexible energy generation assets.

UK Power Reserve maintains security of supply and supports a renewable future as a smart energy provider of choice to the UK energy market. As the pioneers of developing and acquiring flexible power generation, the company owns and operates a rapidly expanding UK portfolio with in excess of 260 MW of generation capacity.

From balancing services, to site purchasing, to operations and plant design, to grid connections, UK Power Reserve brings a unique expertise to the UK energy market.

We would like to thank Ofgem for the ability to contribute to this call for evidence and appreciate the public commitment to the smart energy system of the future which UK Power Reserve hopes to be an integral component of.

### **Executive summary**

UK Power Reserve is a leading investor in new flexible technology, ranging from the latest in fast ramping reciprocating gas engines to modern battery storage technologies. We are also the leading independent participant in the Capacity Market and committed to significant build out of future assets that will be powering the flexible energy sector. This gives us a unique perspective into the issues at hand and we hope our views can be of use in forming the future policies that will drive this future into being.

Storage has a significant role to play in the development of not only the flexibility of the energy system but also in supporting the ability for renewables to greater penetrate into the generation and demand reduction sectors. UK Power Reserve is heavily invested in the development of battery and other storage technologies and would highlight to Ofgem the importance of storage being treated as independent activity as well as the importance in incentivising the network operators to allow easier and more efficient connections for storage facilities.

We believe that a key concern facing the flexible energy market is the current Ofgem review of embedded benefits with the potential for retrospective action to destroy much of the innovation that has already occurred in the area of short notice ramping flexible power station developments. This proposed policy shift is a significant change of direction away from the flexible energy sector in favour of larger transmission connected generation stations that typically offer only limited flexibility.

Aggregators and other demand side reduction capabilities will play an important role in the provision of the flexibility required in the future energy market and as such we believe that it is important that any restrictions or barriers to markets be removed so

as to allow maximum benefit to be utilised by National Grid in deploying these new flexible resources in both balancing services and in the balancing market.

It will also be vital that Ofgem shows a clear direction of travel in order to provide the appropriate pricing signals from both TSO and DNO. At present we fear that there is significant pressure for pricing signals that could potentially help encourage flexibility to be dampened and that this should be reversed, especially as it related to DUoS charges and the considered changes to the supplier levy for the Capacity Market.

## **Enabling Storage**

### System charges

UK Power Reserve agrees thoroughly with Ofgem that charging methodologies were not designed for energy storage systems, in particular for grid scale batteries. We support this call for evidence and we understand that the system should establish clarity in the charging methodologies as to whether storage is classified as intermittent or non-intermittent generator (or a new entity with specific characteristics). The difference in treatment will impact the revenues of developers like us, main stakeholders and service providers. Current regulation allows non-intermittent generators to be charged less than intermittent assets. We support the same allocation and range of benefits for energy storage assets, Network charges should consider and reward the ability and the flexibility of storage assets to balance the system and to reduce the stress in the network, storage system assets such as large scale batteries have the ability to respond in a sub second to provide balancing services that other assets can't, here the need to adjust regulation and address system charges definition in pro of enabling storage in the market.

### Grid connection process

UK Power Reserve recognises and strongly supports the need for clarity on the connection process for storage. Unlike traditional generation connections, energy storage systems need a different set of characteristics to connect the asset, in the specific case of large scale batteries the need of a symmetrical connection (import & export) is imperative and should be managed differently. The connection characteristic varies in terms of size, location, and service provision, but always is needed the symmetrical use. Currently DNOs and DSOs are still trying to understand and define the process of offering grid connections for storage assets. For many of them storage is completely new technology and is continuously evolving, from service provision and technology perspective; This situation causes uncertainty in the connection process on the side of developers and network owners. In our experience, the connection process has been more expensive, uncertain and time consuming without positive results. DNOs have been unable to show flexibility to understand and create the right process to consent to or analyse grid connections for

large scale batteries. We strongly believe that DNOs should be incentivised to recognise the benefits of energy storage systems in their networks.

## Storage Definition

UK Power Reserve view is that Storage should be defined as a new activity, since provides unique services to National Grid, more efficient and faster, in order to keep their grids stable. No other systems or assets can provide the specific services that only storage can provide and this characteristic should be recognised in the legislation. There is currently no regulatory definition for energy storage, and as such there is no clarity as to where storage sits within the legislative and regulatory framework. Along with the regulatory definition of Storage, the role that stakeholders, industry participants, developers can play in storage market must be defined properly.

Due to the rapid penetration of storage assets in the market in the last few months, it is imperative that an adequate regulatory definition is created for Storage, which must account for the benefits and responsibilities assigned specifically to this asset

The EU, Capacity Market Mechanism and the electricity storage network have stated their definition and we strongly support that defining storage as a new activity with a separate licence and specific treatment is the right way to proceed. The legislation for energy storage systems should be specific and designed according to the unique benefits that this asset can provide to the electricity network.

## Final consumption levies

UK Power Reserve understands that energy storage systems are exposed to final consumption levies and believe that they can impact aggressively costs on imported electricity. The nature of the services that can be provided with storage systems are directly related to import and export energy from the grid in a stand-alone service, and the rise in cost as suggested in this call for evidence can seriously affect investment decisions and the penetration of storage system in the electricity network. We agree and recognise that this legislation creates a distortion in the market for energy storage developers when compared with traditional generators. Therefore as a market participant and energy storage developer, we suggest an amendment in the underlying levy legislation in order to address this issue. UK Power Reserve supports to exempting energy storage from final consumption levies for the reasons previously stated.

## Decarbonising the system - subsidies

The UK has an aggressive deadline for decarbonising the system, more intermittent sources of power generation such as wind and solar must be installed in the system when centralised sources of power generation shutdown in 2020; In order to

complete the energy equation, storage must to be added to the system. Therefore, incentives must be developed in order to make the system more flexible for investment.

## Embedded Benefits review: transitional arrangements for triads

One of the major technologies that will contribute to a more flexible energy system is the gas reciprocating engine that UKPR has been developing to provide ground-breaking, fast-ramping generation capability and efficiency. In a world where intermittent renewables are more prevalent, gas reciprocation engine technology is far more cost and carbon efficient than CCGTs that require longer to ramp up and down to deal with intermittency.

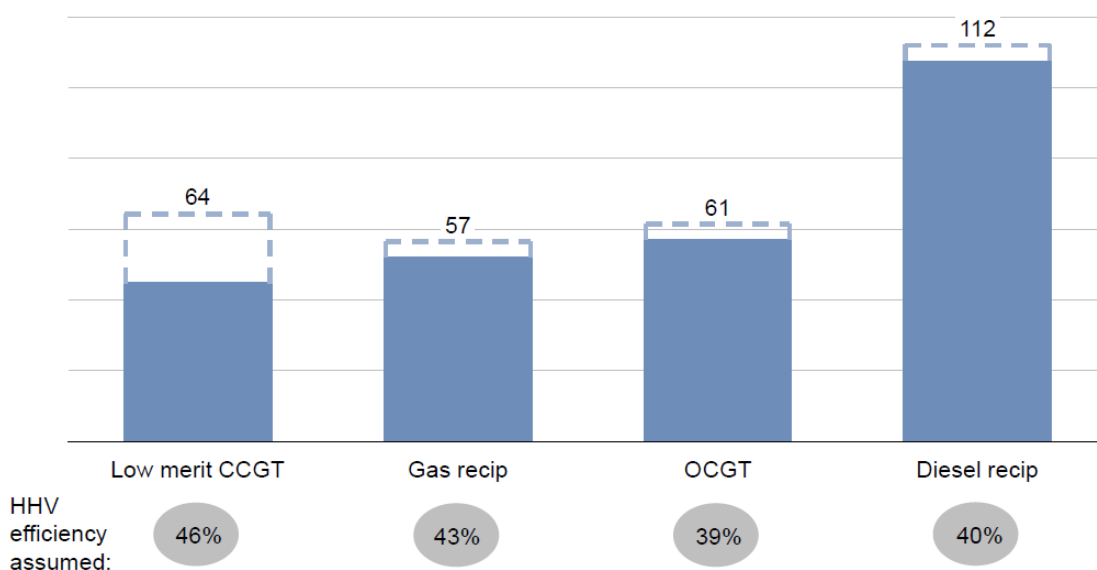
Flexible embedded generation plants are highly cost effective generation assets which can be built relatively fast and inexpensively, with the ability to quickly vary their output at the most affordable price for consumers. In addition, local embedded generation can reduce costs for consumers by reducing the burden and investment required in the transmission network. Further work is required to fully understand and quantify the benefits that embedded generation brings to the energy system of the future. Independent analysis by Aurora shows that the most cost effective way for consumer to deliver fast ramping capacity is via gas reciprocating engines, represented in the chart below:

### Compared to CCGT, peaking plants' running costs are highly competitive when ramping costs are considered

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2019 cost, £/MWh

▤ Ramping cost ■ Variable cost



UKPR has secured capacity mechanism contracts for 508MW of new gas recip capacity through the 2014&15 capacity auctions. These investments were made on the basis that these assets would be able to earn triad revenues. At the point of the investment decisions by UKPR, National Grid and Ofgem were clear in their message to our investors that we should assume triad incomes should continue without material change.

In January last year, BEIS asked Ofgem to carry out a review of embedded benefits. Ofgem's work in this space plus the development of electricity network code modifications by the industry has led to the likely removal of triad revenues for embedded generation assets. In fact, unlike the advice that was provided to UKPR investors in 2015, BEIS has been actively calling potential investors to warn them of the likely or possible change in policy – to forewarn investors that they should not count on triad revenues in their investment decisions. This represents a major policy shift by government and Ofgem and it should be recognised of the serious and damaging implications for existing investors if this policy change is applied retrospectively.

In the 2016 auction, UKPR judged the clearing price to be too low to justify investment in new gas recip capacity without triad revenues assumed. Other companies experienced in the sector took the same view and also did not secure CM contracts for gas recip. It is clear from this auction that gas recip technology cannot be profitable at such low CM prices without triads. Therefore, we must expect that the unbuilt gas recip capacity from CM14,15&16 contracts will not be delivered. This will result in a shortfall of capacity from 2018 onwards which will require the procurement of old, dirty, inflexible and expensive capacity to make sure the lights stay on. This capacity is most likely to be in the form of old coal power stations which will most likely have to be paid to stay open for a few more years. This is a poor, expensive and unsatisfactory outcome for the GB consumer. We anticipate this would cost consumers in excess of £1.7bn. More detail can be found in <http://www.ukpowerreserve.com/media/01062016-press-release-uk-power-reserve-commissions-kpmg-report-embedded-benefits/>.

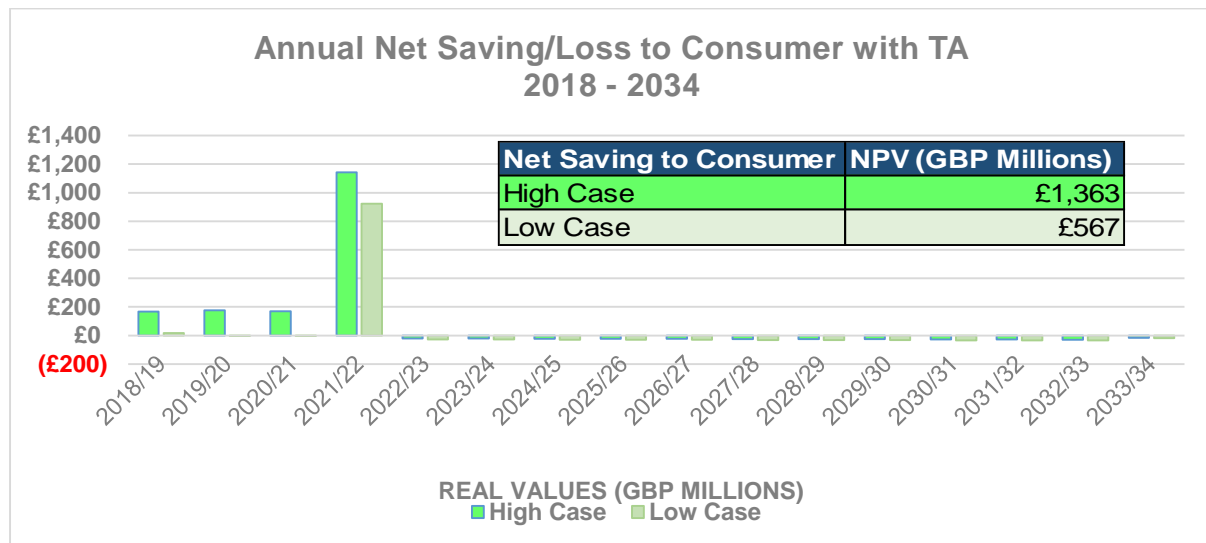
It is vital therefore that Ofgem acts to ensure this committed capacity will be built by not applying the new policy on triads retrospectively. This can be delivered by developing transitional arrangements for existing and committed capacity. Details of the proposed transitional arrangements can be found in the network code modification proposals currently being reviewed by Ofgem.

If Ofgem takes retrospective policy action on committed investment, this will send a clear signal to investors in UK infrastructure that the government and regulators cannot be relied upon to secure investment. This will make investment in new



energy infrastructure even more difficult and expensive than it currently is. This is a bad outcome for the GB consumer who will see higher energy bills as a result.

Therefore, implementation of transitional arrangements avoids a substantial rise in costs to the end consumer, likely to be in the region of - £1.4bn. The vast majority of this benefit would be realized by the end consumer in the short term between 2018 – 2022; as illustrated in the graph below:



Ofgem has an opportunity to ensure it nurtures an emerging and innovative, flexible generation sector of the energy industry. By putting transitional arrangements in place to all investments made in good faith to be delivered, Ofgem will send a signal that competition and innovation will be encouraged. This will be an opportunity to encourage an alternative to Big 6 energy companies who have a stranglehold on the energy industry and on energy consumers.

## Gas Recips

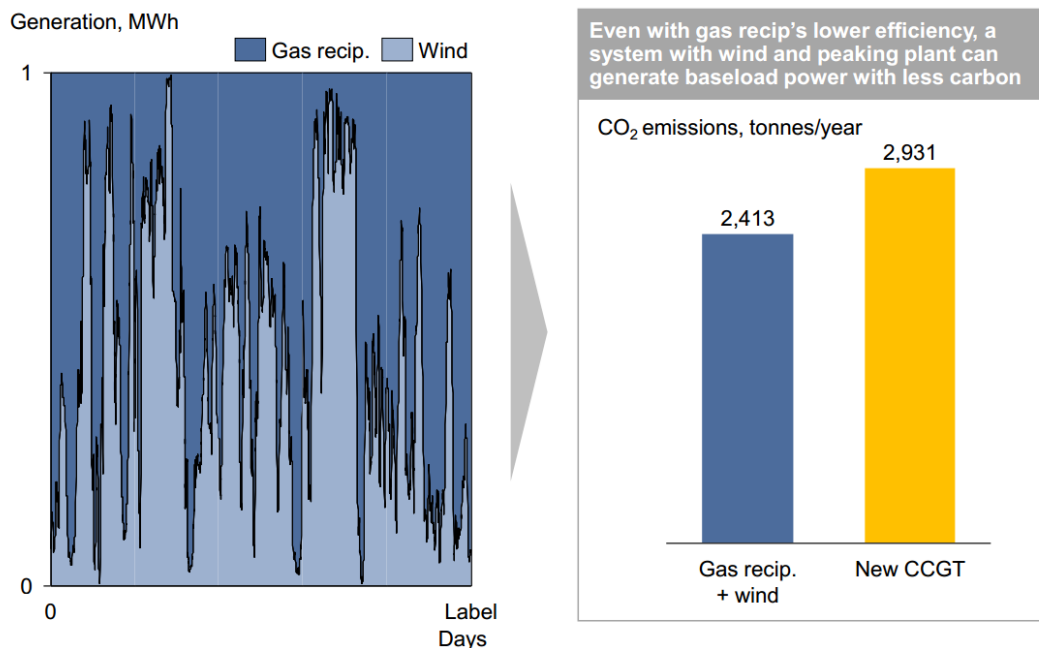
UK Power Reserve has been a leading developer and installer of highly flexible gas reciprocating technology which it is deploying rapidly across its fleet of new sites under its Capacity Market commitments and already operates a fleet of 200MW reciprocating gas engines with significant future deployments to follow.

The value of this often overlooked technology is of paramount importance to the UK's commitment to the further deployment of renewable technologies, especially intermittent sources such as solar and wind that will require substantial flexible backup from despatchable conventional sources. Research has been carried out by Aurora that shows that when complementing high penetrations of wind generation, as is the current major growth story of UK renewable generation, that carbon

emissions are reduced by use of recip engines rather than through the use of CCGT generation as is shown in the below table:

## A combination of peaking plants and wind generation produces less carbon than CCGT on its own

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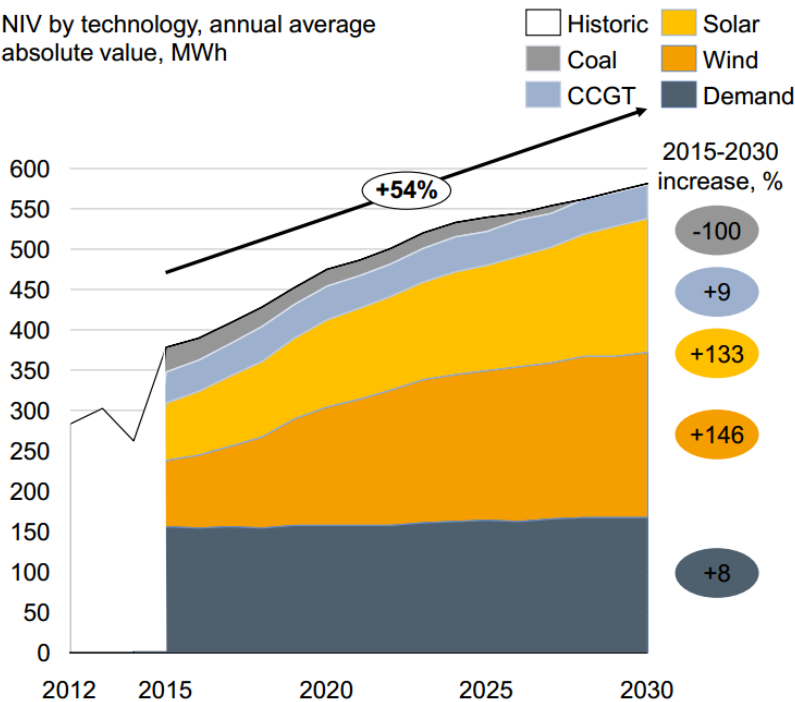


Gas recip. will also play a very important function as a result of the growth of renewable technologies in their role in contributing to greater system imbalance that is inherent from their intermittent nature. The ability of gas recip. to rapidly ramp as demonstrated below is significantly greater than any CCGT technology is capable of which gives them immense advantages in supporting a more flexible energy system by correcting for short term imbalances resulting from renewable forecast errors, unexpected demand shifts or plant failure.

From research carried out by Aurora CCGT ramp profiles are significantly slower than recip. technology and as such would offer not only National Grid but also DNOs significant issues on the ability to rapidly correct imbalance issues that are forecast to become more severe. This would have a consistent negative impact on the end consumer in terms of cost as the TSO and DSO are required to take earlier perhaps more expensive and unneeded actions to prevent system failure. Gas recip. technology would therefore offer significant advantages in terms of both managing imbalances as well as permitting a more flexible network.

## ① Imbalance increases by 54% by 2030, driven by rapid deployment of wind and solar

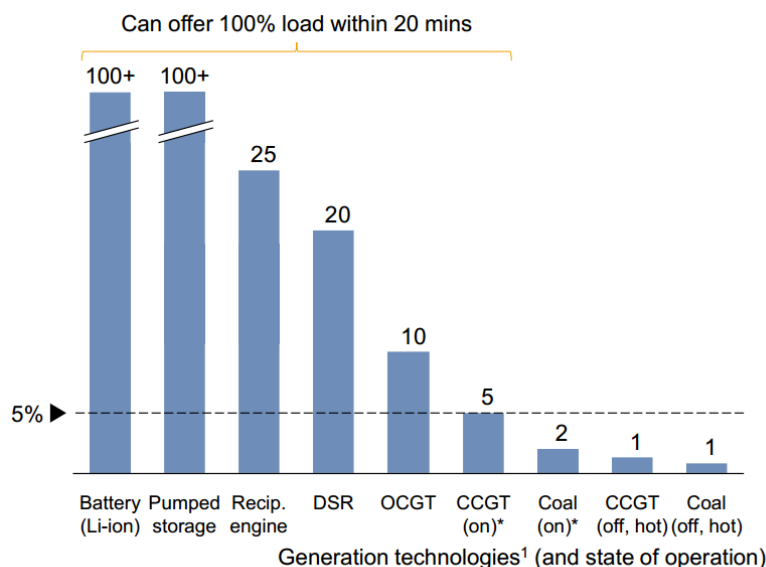
NIV by technology, annual average absolute value, MWh



- Imbalance contributions of demand, wind and solar account for 80-90% of total NIV
- Wind and solar are the main drivers of the increase in NIV, as installed capacities for both are expected to double over this period
- The NIV contribution of demand will remain constant since demand is expected to be relatively flat in the base case

## ② Ramp rates determine how much capacity each technology can offer into the balancing mechanism

Ramp rate, % of full load/min



\* Thermal plants turn on at their stable export limit (SEL)

1. Technologies listed for illustration and are not exhaustive of the ones modelled

- Only technologies with the ability to provide capacity at short notice can participate in the balancing mechanism
- Fast ramp rates allow flexible technologies to offer their full load into the balancing mechanism
- CCGT and coal that are off are unable to participate in balancing as they cannot reach their minimum export load in the required time



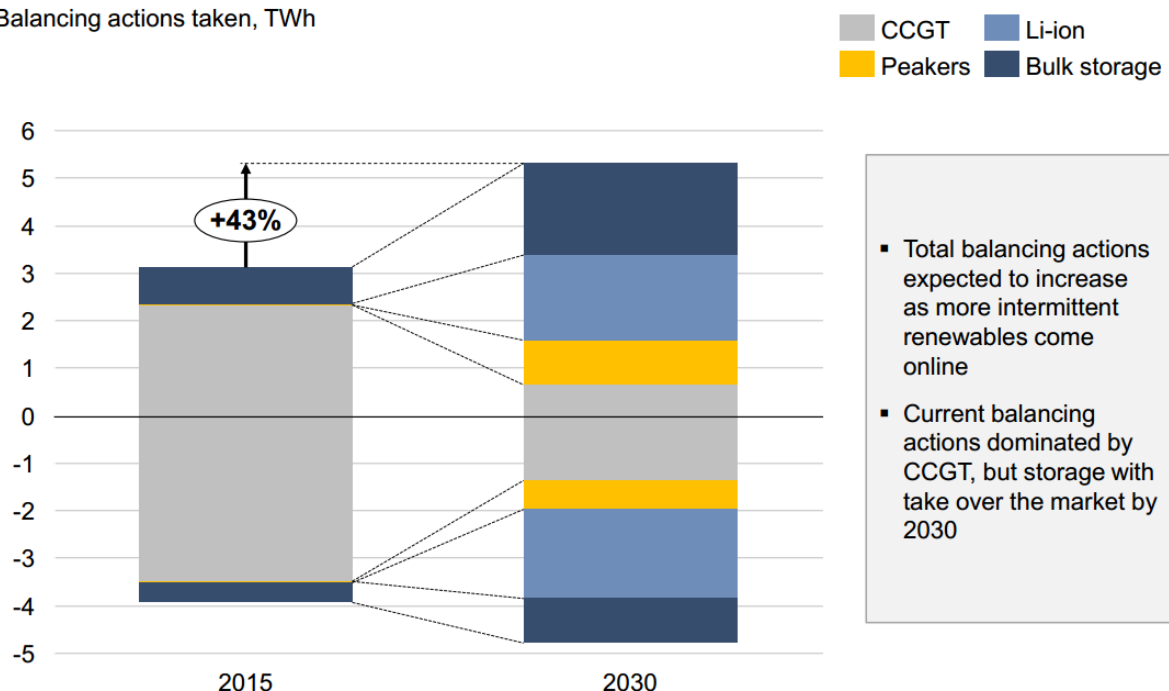
Gas recipcs are thus expected to become a much more prominent element of the toolbox available to National Grid as well as DSOs in the future flexible energy system. The ability to rapidly ramp from a zero generation position coupled with a cleaner generation profile when operating as part of a high penetration renewable generation mix will increasingly favour recipcs over their CCGT competition and as shown in research carried out by Aurora result in recipcs and storage technologies increasingly taking over from CCGT sites in the provision of balancing volumes.

We would highlight the importance of not removing retroactively the market framework that will allow the development of these recip sites and would entrust Ofgem to provide a path forwards that will allow this innovative technology to develop into the flexible energy generation technology that is required to allow the further development of a renewable and flexible energy future.

## Existing technologies will be affected as markets adjust to a new generation mix e.g. in balancing

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Balancing actions taken, TWh



## Aggregators

UK Power Reserve operates as an aggregator and firmly believes that they have a substantial role to play in the development of the flexible energy system of the future. By enabling access to smaller distributed resources, both generating and demand reduction aggregators can enable a massive growth in the ability of the TSO and DNO to manage the system when it is placed under the ever growing stresses

resulting from the growth in both renewable infrastructure as well as increased volatility and tighter supply margins.

Aggregators face many issues and market distortions preventing them from competing with both suppliers and other parties on a level playing field; They face reduced access to balancing services, disproportionately larger costs to entry and indeed regulatory barriers to participating at all in several routes to market.

For aggregators accessing value from the Balancing Market is stymied by significant economic, regulatory and practicality issues. The largest of these is the simple barrier to entry in that for a party to take part in the balancing market they must first be a registered BSC party and also that the site taking part must be fully registered as a BM Unit which requires significant metering, regulatory and financial commitments.

Aggregators are physically prevented from being the BSC party for a relevant site unless they are also the registered supplier for the asset; This forms a significant barrier to entry as well as a benefit to the larger suppliers which have an inbuilt advantage over independent smaller aggregator bodies in the ability to offer services.

The inability to aggregate smaller units together for use in the balancing market is also a significant issue impacting aggregator ability to offer services. This is a result of the minimum MW capacity required to form a distinct BM unit as well as the related issue in that the economic charges of registering a BM unit is on a per unit charge rather than proportional to unit size. This presents a significant distortion of the market in that larger units are not only disproportionately charged less for use of and access to the system by paying a flat fee for registration regardless of size but also that smaller units, that would form the majority of any DSR involvement in the balancing market are overwhelmingly prevented from even participating due to the capacity requirements.

This bias also exists for embedded generation units seeking to partake in the balancing market; The lack of ability to aggregate smaller generation sites together presents a practical disadvantage in terms of the National Grid control room taking despatch measures against them. This has been seen regularly for those embedded generation assets that have gone through the expensive and time consuming process of achieving BM registration process they are regularly overlooked in favour of larger and more established traditional transmission connected sites. This will have the material impact on end consumers that BM actions are artificially limited in terms of competition, driving up costs and removing flexibility. This is especially relevant in light of the extreme balancing actions taken with large transmission connected power stations where much cheaper alternatives could have been source by National Grid through aggregated DSR.

A good example of the distortion of the market faced between BM participants and both non-BM and aggregated capacity is that of BM warming contracts that have been used heavily by National Grid since November 2016, these represent a BM only route to market for certain generators and have proven highly profitable and as such need to be thoroughly examined by Ofgem to ensure that not only is this route to market opened up to all participants, perhaps through NBM warming contracts, but also that the end consumer is not being exploited through the currently limited scope of competition open to National Grid which unduly rewards slow and inefficient plant.

We do note however that National Grid have made firm commitments to addressing some of the above concerns and that the deployment of EBS (Electricity Balancing System) which would hopefully automate away the ingrained human preference for despatching smaller numbers of larger generation units rather than a larger number of small scale aggregated units. We also note National Grid are also looking at how they could implement non geographic BM units into the balancing market, allowing the aggregation of disperse assets. These measures may go some way to correcting current distortions to the market. However we note that at this time there are limited definitive timetables for the correction of many of these issues and as such we call for much clearer time tables for the introduction of a proposed BM light solution and non-geographically located BM units.

UK Power Reserve fully supports of the need for aggregators to be seen to be responsible organisations, and we fully support the ADE and its proposed code of conduct. Whilst aggregation remains business to business however we are not of the opinion that oversight by Ofgem is a requirement and as domestic involvement in any form of aggregation is beyond the horizon of proposed implementations we feel it would be unhelpful at this time, worse it would also potentially be a barrier to innovation.

However, we do believe that access to markets through aggregation should not be treated as an exemption from existing metering and settlement processes so as to avoid the correct auditing of performance and delivery of balancing services. We support Ofgem's previous address of this issue and firmly support the enforcement of a level playing field for assessment and settlement of all services.

As an additional element of ensuring a level playing field with equal access to market for both aggregated and BM participants, we stress the importance of transparency in terms of tendered services being conducted on a fair and equal basis. We are specifically drawing attention to the issue of bilateral agreements being made outside of the tender process: This undermines the transparency of the SO in managing these tenders.

As an example of the potential for a lack of transparency having a significant negative impact on market processes is the National Grid tender process for Enhanced Frequency Response. We believe this process was significantly flawed as after the expression of interest period had expired the terms and timelines of the product were changed radically. This had a significant negative financial impact on UK Power Reserve as we made the commercial decision not to express an interest under the original timelines and were subsequently excluded from the process once the timelines were extended from a July 2017 delivery period to Q1/Q2 2018.

## **System Value Pricing**

The most important issues facing the market in terms of attracting additional capacity to provide contracted DSR are the issues of product compatibility, economic reliability and of contract length.

At present the variety of balancing services and other routes to market are operated on legacy systems designed principally for large scale generation assets. The ability to integrate either aggregated DSR or individual demand side assets into these systems is severely compromised by this and this presents a significant issue when attempting to recruit additional DSR capacity. As an example of this and the role the SO plays in determining the mixture of both balancing services and market access routes the DSR service was setup as an ideal route for DSR to access the winter peak reserve market and allow previously unavailable assets to be despatchable by National Grid, however this was discontinued in favour of procuring further SBR assets to make large existing transmission assets available in their place.

An additional difficulty in terms of contractual flexibility is the lack of ability to guarantee revenues via tendering into services for extended periods. Whereas generation capacity can tender for 15-year Capacity Market payment deals and can therefore formulate extended business plans, DSR and aggregated capacity is unable to offer this level of 'bankability' leading to a lack of confidence in any form of long term economic viability of getting engaged in the DSR market place. When combined with decisions to remove other previously guaranteed routes to market such as Triad and DUOS charging, many potential market participants are deciding against making any investment. This is especially significant considering the overall trend in the returns offered by balancing services such as STOR, where availability rates have plunged.

## **Smart Tariffs**

Our view of many of non-domestic customers who are large enough to be on HH settlements at present is they place great value on their supplier removing this complexity and inherent risk from them. This removes a significant amount of the benefit from the system of flexible pricing that HH metering and settlement allows

them but also removes the unwanted complexity of handling such large amounts of data, frequently with only limited energy management resources to manage it.

We agree thoroughly with Ofgem that the Smart Meter rollout will provide a wealth of data and allow much greater flexibility as well as permit engagement, through aggregators, of currently virgin capacity at both the domestic and non-domestic levels in system support and the provision of balancing services. However, we see significant resistance to flexible pricing even at the medium business scale due to the resistance to added complexity and the inability to adequately compare competing offers.

As a potential direction of travel on this issue and also related to the below issue of smart distribution tariffs we believe that encouraging greater variability in time of day use would increase the risk/reward behaviour process in engaging with flexible pricing arrangements and as such provide greater financial incentive for end consumers to want to participate.

## **Smart Distribution Tariffs**

We are concerned that many existing price signals at the distribution level are currently under threat. The existing system of DUOS charging via the red, amber and green charging methodology is well understood by the current industry, we believe that the current reforms being sought to reduce the variations between these price zones is counterproductive toward the goal of providing a clear and transparent price signal to not only embedded generation but also to general consumption; Both those under aggregated services to actively manage their consumption patterns as well as those customers who are not actively managing their consumption as part of an external aggregation service but are internally capable of shifting demand to better reduce their cost exposure. We feel that the current action taken by Ofgem and the subsequent actions taken by the various DNOs in reacting to this with movements in their DUOS charges have not been helpful for providing this clear cost signal.

We believe that the best route to support the development of a more flexible and responsive electricity system is to allow, or direct that the DUOS bandings become even more variable than they are currently. Incentives should be developed so that DNOs are encouraged to price their charging methodologies to support pricing signals that alleviate demand stress at times of peak.

## **Other Government Policies**

We are concerned with the direction Ofgem has indicated it will be taking with regard to the Capacity Market supplier charge being reformed so that it is collected on a gross rather than net basis. The proposed solution fails to remove the distortion but



instead moves the issue downstream. We believe that moving the charging to gross demand would continue to benefit behind the meter generation regardless which defeats the primary aims of the proposal.

Moving to gross sets a dangerous precedent of moving from net charging to gross that could impact across many other charging models in future.

Spreading the Capacity Market charge across the year benefits the consumer far more than switching to a gross charging method in the winter months. By spreading the cost of the Supplier Charge across the year, the amount levied in the winter peaks will be significantly reduced- the price levied per KWh during this time could be reduced by 67%, reducing the cost of the Capacity Market to the consumer by two thirds in the winter months - this is a particularly critical reduction with regard to the already high electricity bills consumers face during this time period. A move to gross charging will still keep the passed-on cost to consumers high during this time.

Distribution generation generally runs at a low load factor of generally no higher than 5-10%, and is unlikely to run outside of peak times. Therefore, the reduction of 60-75% in the price levied per KWh over the peaks in our method vastly reduces the exposure distribution generation has to supplier levy avoidance payments, making this option far less lucrative.

Spreading the CM supplier charge across the year would align with Capacity Agreement obligations – which run throughout the year – ensuring consistent charging strategy. This would make use of existing charging arrangements and thus be far easier to implement. It also removes the distortion of distributed generation potentially benefiting suppliers while retaining the net charging principle. A move to gross charging will not prevent behind-the-meter generation from helping suppliers avoid this charge.

Even with the introduction of a gross charging methodology, behind the meter capacity will still benefit from double subsidy, as this will not be accounted for as part of gross demand. This is a particularly pertinent concern given the vast increase of successful DSR in the 2016 Capacity Market T-4 auction. DSR in delivery year 2020 now accounts for 1.4GW worth of Capacity Market Agreements, a 209% increase on the amount in present delivery year 2019. As this DSR has been won in a T-4 auction, rather than a Transitional Arrangements auction, generating units such as back-up diesel generators can be aggregated behind the meter to show demand-turn down. BEIS have shown that this demand turndown and the saving passed on can be worth as much as £18/kw. Therefore, introducing a gross charging methodology will not eliminate double payments to Capacity Market Providers. Rather, it will cause double payments and overcompensation to switch to DSR and behind the meter

generation, causing further distortion in the Capacity Market clearing price and thereby undermining BEIS's policy intent.

Further, there is currently a provision that Transmission Connected generation is exempt from paying the CM supplier levy or any Supplier levies on its imported volumes. As import costs for a transmission plant are high, Supplier Levy avoidance provides a significant competitive cost advantage for transmission over distribution connected generation, which is liable to pay the supplier levy. This distortion of the market provides a significant mismatch in the market between transmission generation and both embedded generation and aggregated DSR capacity which is placed at a significant disadvantage.

We therefore believe that Transmission connected generation should be exposed to paying the equivalent supplier levy on imported energy, in order to ensure that a level playing field is maintained for both technology types. By charging Transmission Connected Generators the Supplier Levy can be spread over a much wider charging base and reduce the impact on the end consumer whilst levelling the playing field with non-exempt capacity.

## **Consumer Engagement with DSR**

As an aggregator we market directly to potential non domestic customers through our commercial relationship with Total Gas & Power who as a supplier have a much greater direct access route through to customers. In general, we believe customers are either directly approached by aggregators or their supplier or seek information direct from National Grid.

In our view of the market approximately 70% of our aggregation leads arise from either ourselves or our supplier partners directly approaching potential customers from either other supply based business dealings or from other business relationships. The remaining 30% of aggregation leads are direct cold calls from potential aggregation customers who have found UKPR either from its reference on the National Grid website as an aggregation provider or through the power of google.

Schemes such as the demand response scheme have been instrumental creating greater market awareness amongst potential aggregation capacity holders, especially at smaller industrial and agricultural business where energy management is often not an active endeavour but rather simply a bill to be paid.

However, we argue that the National Grid website is rather byzantine in its complexity and difficult to use to adequately search for simple information. Many aggregation customers who have come to us from the National Grid website still have very little idea what sort of opportunities are available to them or what product they can apply for. Although this represents a great opportunity for aggregators it



does present a barrier to entry in that the customer is often reliant on the aggregator for all their information, presenting the potential for malpractice. We believe further development of both the National Grid website and the Power Response website would be a method of addressing this, especially with a focus on the less well informed customer who is mostly after core information rather than the often technical pieces that are available.