		To be assessed	Score	Summary
Cost Base - Charging Model	Relates to Action FTF25	**Transport Model** - cost of importing or exporting energy through an existing network	Scores not all entered	
		Expansion Model - levelised cost of future network based on a weighted average of the existing network	Scores not all entered	
		Remaining Headroom - cost of addressing the next constraints in accordance with today's design standards	Scores not all entered	
Location Signals		**500MW Model/Probabilistic Model** - 'cost allocation' model	Scores not all entered	
		DC Load Flow Investment Cost Related/Long Run Incremental Cost - incremental model	Scores not all entered	
		Forward Cost Pricing - Contingency model	Scores not all entered	
Number of Models		**Single model across all voltage levels**	Scores not all entered	
		T&D charging model different but with common assumptions	Scores not all entered	
		Different charging models across T&D	Scores not all entered	
Tariff Elements	Relates to Action FTF26	**Fixed Charges (£/year)** – charges which are applied on a per user basis as long as the user remains connected	Scores not all entered	
		Unit Rates (£/kWh) – standard unit charges, applicable to energy usage with a number of sub-options for unit rates which vary by time of use.	Scores not all entered	
		Agreed Capacity Charges (£/agreed kVA) – charges levied in respect of a user's agreed capacity with the network operator. Agreed capacities are generally specified in bilateral connection agreements, and as such	Scores not all entered	
		Peak Demand Charges/Excess Capacity Charges (£/peak kW or £/peak kVA) – charges for peak usage, i.e. for half hourly metered users the usage in the	Scores not all entered	
		Reactive Power Charges (£/kVArh) – charges for usage of reactive power, reflecting the difference between actual power (in kW) and apparent power (in kVA), and where the two diverge due to poor power factor which drives the need for increased	Scores not all entered	
Time of Use Options		**Unrestricted Unit Rates** - a charge which applies to every unit used (or capacity taken) in any time period.	Scores not all entered	
		Static Time of Day Unit Rates – charges which vary by time of day with time bands fixed throughout the year (akin to the existing red, amber and green unit rates for HH settled distribution connected users at LV and HV).	Scores not all entered	
		Critical Peak Pricing (CPP) – charges which vary by time of day with a narrow peak band in which the cost per unit is significantly higher (akin to the existing 'super-red' period for distribution connected users at EHV which applies only to a relatively small number of time periods in the year, and at the extreme HH TNUoS triad charges which have a very	Scores not all entered	
		Variable Time of Day – charges which vary (potentially up to real time) by time period depending on the level of demand at the time (TNUoS triad charges have some features of this, in that the time periods to which the £/kW unit rate will apply are variable based on the times of peak demand, albeit the rates themselves are fixed	Scores not all entered	
		Inclining Block Rates – under this option a lower unit rate would be applied to usage below a certain threshold, and a higher unit rate to usage above this threshold (note – more than two 'blocks' could be	Scores not all entered	

Effective Competition:
2 - Optimise Capacity Allocation

To be assessed	Advantages	Disadvantages	Score and summary
Transport Model		Gives no indication of capacity simply allocates costs of maintaining the status quo Does not include cost based on absolute cost impact	
Expansion Model	Signals areas of low and/or high capacity relatively predictable, magnitude of changes low during CM timescales	Does not recognise specific reinforcement costs of addressing capacity constraints Only provides relative locational signals, not absolute cost signals which is likely to distort the market and impact competition	
Remaining Headroom	Signals areas of low and/or high remaining capacity and scale of increasing capacity. Increased recognition of reinforcement cost More closely linked to actual network and required costs/savings due to users actions and hence less distortion to competition	Predictability of signal reduced, parties cannot effectively make investment decisions	
500MW Model/Probabilistic Model	Generalised model reflective of current engineering practice	No locational element to charges so not specific to any site	
DC Load Flow Investment Cost Related/Long Run Incremental Cost	Signals areas of low and/or high capacity against approximation of planning standards	Use of DC Load Flow is a tool to simplify the study of a network - reflective for an interconnected system but less reflective of physical power flows on certain types of networks too far removed from dynamic operational model - flexibility providers operationally supporting the network may be modelled here as causing issues in the limited snapshot model, producing a disproportionally high tariff Only provides relative locational signals, not absolute cost signals which is likely to distort the market and impact competition	
Forward Cost Pricing	Signals areas of low and/or high remaining capacity and scale of increasing capacity	Allocates prices to network groups rather than nodes - so can optimise allocation between groups but not inter-group More closely linked to actual network and required costs/savings due to users actions and hence less distortion to competition	
Single model across all voltage levels	Avoids distortionary investment incentives which may be simply an artefact of different charge calculation models	May not reflect different planning standards or engineering practice etc. Whilst theoretically this would provide a harmonised	
T&D charging model different but with common assumptions	Aligns models Aligned models are less likely to create distortions between networks	Some discontinuities will remain	
Different charging models across T&D	Models can more closely reflect different planning standards or engineering practice etc.	Potential for distortionary investment incentives which may be simply an artefact of different charge calculation models	
Fixed Charges (£/year)	Depends on extent to which costs are driven per-head depends on ability to limit volatility	Does not incentive the right behaviour and low usage customers pay for high usage. Risk of [inefficient] user disconnection Limited cost-reflectivity so not appropriate for a FLC	
Unit Rates (£/kWh)	Depends on extent to which costs are driven per-kWh depends on ability to limit volatility Potentially able to be used to provide an appropriate FLC		
Agreed Capacity Charges (£/agreed kVA)	Depends on extent to which costs are driven per-kW, and any modifiers for operational flexibility provided depends on ability to limit volatility	Limited cost-reflectivity so not appropriate for a FLC	
Peak Demand Charges/Excess Capacity Charges	Likely to give a good FLC	Depends on the specific definition of "peak", whether this results in stable, predictable (useful) tariffs	
Reactive Power Charges (£/kVArh)	Depends on extent to which costs are driven per-kVA or per-kVAr, and any modifiers for operational kVAr flexibility provided (to T or D!)		
Unrestricted Unit Rates		Limited cost-reflectivity so not appropriate for a FLC	
Static Time of Day Unit Rates	Depends upon the bands used, but is a versatile option to allow cost-reflective FLC		
Critical Peak Pricing (CPP)	Depends upon the bands used, but is a versatile option to allow cost-reflective FLC		
Variable Time of Day	Potentially can be very cost-reflective		
Inclining Block Rates			

Effective Competition:
4 - Provide a level playing field for all network users

To be assessed	Advantages	Disadvantages	Score and summary
Transport Model		Lack of locational signals results in all user actions being given the same cost signal regardless of the actual cost and/or benefit derived	
Expansion Model	Symmetric treatment of demand and generation	Symmetric treatment ignores engineering factors related to fault-level reinforcement etc. Only provides relative locational signals, not absolute cost signals which is likely to distort the market and hence not create a level-playing field	
Remaining Headroom	Demand treatment highly reflective of security of supply standards Likely to provide a better FLC for demand	Generation not subjected to a locational signal (due to no underlying security of supply standard)	
500MW Model/Probabilistic Model		Lack of locational signals results in all user actions being given the same cost signal regardless of the actual cost and/or benefit derived No locational signal means charges are not cost-reflective and hence likely to be distorted which does not create a level-playing field	
DC Load Flow Investment Cost Related/Long Run Incremental Cost	Symmetric treatment of demand and generation (in TNUoS)	Symmetric treatment ignores engineering factors related to fault-level reinforcement etc. Can it account for different operational profiles? Lack of absolute cost signal means distortion likely which does not create a level playing field	
Forward Cost Pricing	Demand treatment highly reflective of security of supply standards Whilst likely to provide volatile signals, this does give the most cost-reflective approach	Generation not subjected to a locational signal (due to no underlying security of supply standard) More cost-reflective signal for demand is better, but approach needs to be adapted to provide similar for generation.	
Single model across all voltage levels	Avoids distortionary investment incentives which may be simply an artefact of different charge calculation models	May not reflect different planning standards or engineering practice etc.	
T&D charging model different but with common assumptions	Aligns models	Some discontinuities will remain	
Different charging models across T&D	Models can more closely reflect different planning standards or engineering practice etc.	Potential for distortionary investment incentives which may be simply an artefact of different charge calculation models	
Fixed Charges (£/year)	Simple Depends on extent to which costs are driven per-head depends on ability to limit volatility	Limited cost-reflectivity so will not create a level playing field	
Unit Rates (£/kWh)	Depends on extent to which costs are driven per-kWh depends on ability to limit volatility Could provide a level playing field		
Agreed Capacity Charges (£/agreed kVA)	Depends on extent to which costs are driven per-kW, and any modifiers for operational flexibility provided depends on ability to limit volatility	Limited cost-reflectivity so will not create a level playing field	
Peak Demand Charges/Excess Capacity Charges	Likely to be more cost-reflective and hence provide a level-playing field	Depends on the specific definition of "peak", whether this results in stable, predictable (useful) tariffs	
Reactive Power Charges (£/kVArh)	Depends on extent to which costs are driven per-kVA or per-kVAr, and any modifiers for operational kVAr flexibility provided (to T or D!)		
Unrestricted Unit Rates		Limited cost-reflectivity so will not create a level playing field	
Static Time of Day Unit Rates	Depends upon the bands used, but is a versatile option to create level-playing field		
Critical Peak Pricing (CPP)	Depends upon the bands used, but is a versatile option to create level-playing field		
Variable Time of Day		Favours users with smart technology which can respond to short-term price signals automatically Potentially a good option but complexity may create barriers	
Inclining Block Rates			

Effective Competition:
5 - Provide effective network user price signals, i.e. price signals which can be reasonably anticipated by a user with sufficient confidence to allow them to take action

To be assessed	Advantages	Disadvantages	Score and summary
Transport Model	Likely to result in stable prices	Lack of pointed locational signal	
Expansion Model	Should be possible for an expansion model to result in reasonably stable prices. Use of up front assumptions (expansion constant and fixed asset costs) reduces the need for network operator to make internal assumptions and so increases transparency. Avoids attributing specific network investments to specific network users.	Can provide stable price signals but to the detriment of cost-reflectivity and hence this will not be effective	
Remaining Headroom	Site specific (but rule based) reinforcement costing Most cost-reflective approach	Subject to saw-tooth price increases or year to year volatility, with a user's charges often influenced by the actions of other users in the same location Sacrifices predictability	
500MW Model/Probabilistic Model	Likely to result in stable prices Price changes are predictable	Lack of pointed locational signal Stable prices but no cost-reflectivity	
DC Load Flow Investment Cost Related/Long Run Incremental Cost	Use of up front assumptions (expansion constant and fixed asset costs) reduces the need for network operator to make internal assumptions and so increases transparency. Avoids attributing specific network investments to specific network users.	Potential to result in volatile prices (particularly with LRIC approach), with a user's charges often influenced by the actions of other users in the same location Relatively short term predictability but still limited in the longer term and is still not fully cost-reflective	
Forward Cost Pricing	Site specific (but rule based) reinforcement costing Whilst likely to provide volatile signals, this does give the most cost-reflective approach	Subject to saw-tooth price increases or year to year volatility, with a user's charges often influenced by the actions of other users in the same location	
Single model across all voltage levels	Allows users to make comparable decision between T&D investments		
T&D charging model different but with common assumptions	More likely to allow appropriate comparison between connection and use of network at different voltages		
Different charging models across T&D			
Fixed Charges (£/year)	Fixed charges are completely predictable for the end user	A user cannot take action (other than disconnection) to avoid fixed charges, so arguably does not meet the 'to allow them to take action' element Question if these are predictable year on year Very predictable charge but not effective as not cost-reflective	
Unit Rates (£/kWh)	A unit rate is relatively easy for some users to avoid by taking action. A time bounded unit rate could signal the contribution to peak demand across a diverse network, and averaging over a period of time (such as the Annual Load Factor in transmission) would avoid conflicts between investment and dispatch signals. Predictable charge	If the unit rate is designed to incentivise investment decisions, then it may incentivise inefficient dispatch behaviour.	
Agreed Capacity Charges (£/agreed kVA)	Particularly well suited as an option for incentivising user investment decisions. If relatively predictable years in advance and viewed as stable, which this might not be	Does not provide any operational dispatch price signal; therefore agreed capacity charges would need to be combined with some other mechanism (e.g. Balancing Mechanism) to provide operational dispatch incentives. Not effective as not cost-reflective	
Peak Demand Charges/Excess Capacity Charges	More cost-reflective	Likely to be difficult (particularly for small users) to respond to as requires a high level of visibility of usage at all times in order to identify and reduce peak usage Can be hard to predict	
Reactive Power Charges (£/kVArh)	Can be predictable for larger users with sophisticated understanding, and action can be taken through up front investment in power factor correction equipment	Smaller user unlikely to be aware of reactive power or be able to make changes to respond	
Unrestricted Unit Rates	Simple for users to understand	Only action which can be taken is to reduce overall usage - moving usage to other times has no impact on charges faced	
Static Time of Day Unit Rates	Prices and time periods are known in advance, so users can respond to them		
Critical Peak Pricing (CPP)	Assuming the critical peak period and price are known in advance, users can respond easily	May clash and distort response to other price signals which are also designed to provide price signals which may be associated with periods of network stress	
Variable Time of Day	Potential for very effective response for users with smart technology	May be difficult for some users to respond to, particularly smaller demand users. May clash and distort response to other price signals which are also designed to provide price signals which may be associated with periods of network stress Increased cost-reflectivity may make this less predictable	
Inclining Block Rates		Smaller users may find it difficult to monitor when their usage is remaining within the 'lower' block in order to take action to avoid going over the threshold into the 'higher' block. May clash and distort response to other price signals which are also designed to provide price signals which may be associated with periods of network stress	

Effective Competition:
6 - Appropriately allocate risk between individual network users and the wider body of users

To be assessed	Advantages	Disadvantages	Score and summary
Transport Model		Lack of cost-reflective charges means that risk will not be appropriately allocated. Requires locational and constraint costs to be reflected though other means e.g. deeper connection boundary	
Expansion Model	Avoids attributing specific network investments to specific network users.	Lack of cost-reflective charges means that risk will not be appropriately allocated. Requires locational and constraint costs to be reflected though other means e.g. deeper connection boundary	
Remaining Headroom	Most cost-reflective approach means risk likely to be best allocated	Attributes specific network investments to specific network users which may over-expose individual users to the risk that reinforcement is required	
500MW Model/Probabilistic Model		Lack of cost-reflective charges means that risk will not be appropriately allocated.	
DC Load Flow Investment Cost Related/Long Run Incremental Cost		Lack of cost-reflective charges means that risk will not be appropriately allocated.	
Forward Cost Pricing	Most cost-reflective approach means risk likely to be best allocated		
Single model across all voltage levels	Comparable costs allows more efficiently allocate agreements to generation, reducing cost to consumers and reducing risk of stranded assets		
T&D charging model different but with common assumptions		Different allocation of risk in Scotland compared to England, not justified by the underlying engineering/physics	
Different charging models across T&D		Different allocation of risk in Scotland compared to England, not justified by the underlying engineering/physics	
Fixed Charges (£/year)	Charges not affect by usage, so parties can't avoid them, recovering costs over wider base Depends on extent to which costs are driven per-head depends on ability to limit volatility	No competition Could encourage consumers to disconnect, reducing charging base Lack of cost-reflectivity means inappropriate risk allocation	
Unit Rates (£/kWh)	More cost-reflective and hence better at allocating risk Depends on extent to which costs are driven per-kWh depends on ability to limit volatility		
Agreed Capacity Charges (£/agreed kVA)	Depends on extent to which costs are driven per-kW, and any modifiers for operational flexibility provided depends on ability to limit volatility	Lack of cost-reflectivity means inappropriate risk allocation	
Peak Demand Charges/Excess Capacity Charges	More cost-reflective and hence better at allocating risk	Depends on the specific definition of "peak", whether this results in stable, predictable (useful) tariffs	
Reactive Power Charges (£/kVArh)	Depends on extent to which costs are driven per-kVA or per-kVAr, and any modifiers for operational kVAr flexibility provided (to T or D!)		
Unrestricted Unit Rates		Lack of cost-reflectivity means inappropriate risk allocation	
Static Time of Day Unit Rates	More cost-reflective and hence better at allocating risk		
Critical Peak Pricing (CPP)			
Variable Time of Day	More cost-reflective and hence better at allocating risk		
Inclining Block Rates			

Cost Reflectivity:
3 - Ensure that price signals reflect the incremental future network costs and benefits that can be allocated to and influenced by the actions of network users

To be assessed	Advantages	Disadvantages	Score and summary
Transport Model	Likely to result in stable prices Price changes are predictable	Lack of pointed locational signal Does not provide cost-reflective signals or charges Depends how granular/nodal this is worked out at. At a granular level, this can become a disadvantage: backwards-looking tariffs reflect lumpy investment as steep volatility,	
Expansion Model	Should be possible for an expansion model to result in reasonably stable prices. Use of up front assumptions (expansion constant and fixed price per km) reduces the need for network operator to make internal assumptions and so increases transparency.	Average costs do not reflect the actual cost of reinforcement at any given location - but this could be a somewhat localised signal by design Does not provide cost-reflective signals or charges	
Remaining Headroom	Highly cost-reflective by exposing users to the cost and/or benefit of network reinforcements which their behaviour has the potential to drive and/or avoid	low predictability, reduces ability of participant to properly account for costs in long-medium term. Can lead to inefficient investment decisions which increases costs in short-term constraint management. If set nodally or zonally, then existing user's tariff driven by OTHER users' behaviour - wholly un-reflective - and ultimately all users will just see this as a source of volatility, unless individual tariffs can be locked-in	
500MW Model/Probabilistic Model	Recognises the cumulative effect of multiple customers connecting to the network Price changes are predictable	Limited locational signal. Likely to require assumptions from the network operators when operating the model. Does not provide locational cost-reflective signals or charges	
DC Load Flow Investment Cost Related/Long Run Incremental Cost	More price reflective than transport model or 500MW model Relatively predictable changes based on changes in use of network, allows parties to change behaviour	Average costs do not reflect the actual cost of reinforcement at any given location. Use of DC Load Flow is a tool to simplify the study of a network - reflective for an interconnected system but less reflective of physical power flows on certain types of networks. Unreflective of differing operational profiles	
Forward Cost Pricing	Highly cost-reflective by exposing users to the cost and/or benefit of network reinforcements which their behaviour has the potential to drive and/or avoid.	High volatility and low predictability in approach reduces the ability of network users to respond to signals Tariffs could be driven by other users	
Single model across all voltage levels	Avoids distortionary investment incentives which may be simply an artefact of different charge calculation models	May not reflect different planning standards or engineering practice etc.	
T&D charging model different but with common assumptions	Aligns models	Some discontinuities will remain	
Different charging models across T&D	Models can more closely reflect different planning standards or engineering practice etc.	Potential for distortionary investment incentives which may be simply an artefact of different charge calculation models	
Fixed Charges (£/year)	May be used to give a forward looking cost signal for costs which will be avoided if the user disconnects. May be appropriate for particular groups who's response would not improved if the cost was more locationally cost reflective, or if the fixed charge reflects a particular element of cost which is the same for a given type of user or a given location	Risk of over-valuing 'off-grid' or behind the meter solutions if fixed charges are too high. A generalised fixed charge is less likely to be cost reflective. Not cost-reflective for FLC UoS charges	
Unit Rates (£/kWh)	A unit rate is relatively easy for some users to avoid by taking action - to the extent that this results in lower network costs, this is cost-reflective. Potentially cost-reflective for some elements of the charge	Risk of over-valuing reduced usage if not targeted locationally or temporally	
Agreed Capacity Charges (£/agreed kVA)	If incremental future network investment is driven by user capacity, then this could provide an effective cost reflective price signal. It may be appropriate to reflect that different types of user (of the same agreed capacity) may cause different incremental	Not fully cost-reflective and hence less efficient	
Peak Demand Charges/Excess Capacity Charges	Can be cost reflective if costs are driven by user's peak demands at certain times More cost-reflective and hence appropriate for an FLC	Network costs are driven by network peaks rather than individual user's peaks	
Reactive Power Charges (£/kVArh)	Can be cost reflective if proportional to the extent to which network costs and/or benefits are driven by reactive power usage beyond the need for greater capacity	(Must add a modification or exemption for users which are providing a Reactive Power service)	
Unrestricted Unit Rates		Risks over-valuing lower overall usage and under-valuing reduced usage at peak	
Static Time of Day Unit Rates	May be useful to signal low cost network periods to demand users, such as low/zero locational network charges overnight. To the extent that usage of the network in fixed time periods drives network costs and/or benefits, static time of use charges can be cost-reflective	May incentivise inefficient operational dispatch decisions relating to periods of constraint - this is because periods of system stress are a function of outturn factors such as weather, demand, market events. If network investment is driven by user capacity, then a price signal which aims to affect user operational dispatch at times of peak demand may fail to be cost reflective of incremental future network investment. If set globally, may encourage 'wrong' behaviours i.e.	
Critical Peak Pricing (CPP)	To the extent which network usage in the critical peak period drives network costs and/or benefits, critical peak prices can be cost-reflective	Peak demand charging on its own would fail to provide an effective price signal for generation dominated zones where network investment is required to mitigate constraints caused by generation. If network investment is driven by user capacity, then a price signal which aims to affect user operational dispatch at times of peak demand may fail to be cost reflective of incremental future network investment.	
Variable Time of Day	May tend to provide a more cost reflective operational dispatch price signals than static TOU tariffs More cost-reflective and hence appropriate for an FLC	If network investment is driven by user capacity, then a price signal which aims to affect user operational dispatch at times of peak demand may fail to be cost reflective of incremental future network investment.	
Inclining Block Rates		Not cost reflective - an increment of usage does not impose fundamentally different costs if driven by a high usage user than by a low usage user	

Developments in Network Businesses:
1 - Efficiently meet the essential service requirements of network users

To be assessed	Advantages	Disadvantages	Score and summary
Transport Model		Price signal for flexible generators muted Lack of cost-reflective charges means that users do not face appropriate incentives and hence overall network likely to be very inefficient.	
Expansion Model		Lack of cost-reflective charges means that users do not face appropriate incentives and hence overall network likely to be very inefficient.	
Remaining Headroom	Most cost-reflective approach likely to be most efficient	Penalising tariffs in constrained areas - will discourage new providers of flexibility (only contracted to relieve the worst excess, thereby taking the network to just full, hence likely to incur a high tariff related to zero remaining headroom)	
500MW Model/Probabilistic Model		Price signal for flexible generators muted Lack of cost-reflective charges means that users do not face appropriate incentives and hence overall network likely to be very inefficient.	
DC Load Flow Investment Cost Related/Long Run Incremental Cost		Lack of cost-reflective charges means that users do not face appropriate incentives and hence overall network likely to be very inefficient.	
Forward Cost Pricing	Most cost-reflective approach likely to be most efficient	Volatility unwelcome to most users	
Single model across all voltage levels			
T&D charging model different but with common assumptions			
Different charging models across T&D			
Fixed Charges (£/year)	Vulnerable users know the cost	Vulnerable users may be overcharged	
Unit Rates (£/kWh)	At LV reflects cumulative contribution to network reinforcement requirement, protecting disproportionate allocation of costs to an individual user.		
Agreed Capacity Charges (£/agreed kVA)	Users can obtain certainty by contracting in advance for the capacity (or 'access') they require Values availability of the network.		
Peak Demand Charges/Excess Capacity Charges	Encourages the right behaviour and cost reflective of need. Requires sufficiently predictable windows of charge		
Reactive Power Charges (£/kVArh)	Supports market for reactive power service providers		
Unrestricted Unit Rates			
Static Time of Day Unit Rates			
Critical Peak Pricing (CPP)			
Variable Time of Day			
Inclining Block Rates	Meets service requirements of low usage users at low cost, whilst exposing higher usage users (e.g. EV owners) to higher costs	Dependent on the level of the rising blocks - risk of penalising large households compared to smaller households for the same type of 'essential' usage	

Developments in Network Businesses:
7 - Support efficient network development

To be assessed	Advantages	Disadvantages	Score and summary
Transport Model		Gives no signal as to how a network develops and so no information to the network operator or user for better use of the network	
Expansion Model	Symmetric treatment of demand and generation	Symmetric treatment of demand and generation ignores engineering factors related to fault-level reinforcement etc.	
Remaining Headroom	Demand treatment highly reflective of security of supply standards. Taking account of spare capacity on the network can lead to more efficient locational decisions.	Generation not subjected to a locational cost signal (due to no underlying security of supply standard)	
500MW Model/Probabilistic Model	Results in stable prices which are likely to result in predictable user responses	Limited location signal Lack of cost-reflective charges means that users do not face appropriate incentives and hence overall network likely to be very inefficient.	
DC Load Flow Investment Cost Related/Long Run Incremental Cost	Symmetric treatment of demand and generation	Symmetric treatment ignores engineering factors related to fault-level reinforcement etc. Lack of cost-reflective charges means that users do not face appropriate incentives and hence overall network likely to be very inefficient.	
Forward Cost Pricing	Demand treatment highly reflective of security of supply standards	Generation not subjected to a locational signal (due to no underlying security of supply standard)	
Single model across all voltage levels	Avoids distortionary investment incentives which may be simply an artefact of different charge calculation models	May not reflect different planning standards or engineering practice etc.	
T&D charging model different but with common assumptions	Aligns models	Some discontinuities will remain	
Different charging models across T&D	Models can more closely reflect different planning standards or engineering practice etc.	Potential for distortionary investment incentives which may be simply an artefact of different charge calculation models	
Fixed Charges (£/year)			
Unit Rates (£/kWh)	Right price signal for right behaviour if time of use Depends on the extent users can respond and appropriate flexibility can be purchased		
Agreed Capacity Charges (£/agreed kVA)	Incentivises users to agree appropriate capacities, so the network business obtain information regarding the future investment decisions of users.		
Peak Demand Charges/Excess Capacity Charges	Encourages right amount of capacity to be bought Depends on extent users can respond and appropriate flexibility can be purchased		
Reactive Power Charges (£/kVArh)	Depends on extent users can respond and appropriate flexibility can be purchased		
Unrestricted Unit Rates			
Static Time of Day Unit Rates		In this situation, the network operator would be a price setter and volume taker which may make it difficult to manage the operation of the network because they cannot control how much capacity will respond to the price signal, or at what location.	
Critical Peak Pricing (CPP)		In this situation, the network operator would be a price setter and volume taker which may make it difficult to manage the operation of the network because they cannot control how much capacity will respond to the price signal, or at what location.	
Variable Time of Day		In this situation, the network operator would be a price setter and volume taker which may make it difficult to manage the operation of the network because they cannot control how much capacity will respond to the price signal, or at what location.	
Inclining Block Rates			

Efficiency of Implementation:
8 - Be Practical

To be assessed	Advantages	Disadvantages	Score and summary
Transport Model	Likely slightly more complex than existing LV and HV but simpler than existing EHV and TNUoS	Whilst a simpler approach, not practical to use a model which has such disadvantages	
Expansion Model	More complex than existing LV and HV, simpler than existing EHV, complexity as per status quo for TNUoS	Whilst a simpler approach, not practical to use a model which has such disadvantages	
Remaining Headroom	Status quo for EHV distribution charging Should be practical to use across all voltages	Significantly more complex than existing LV and HV, and more complex for TNUoS	
500MW Model/Probabilistic Model	Relatively easy to implement - status quo at HV and LV, simplification for EHV and TNUoS Over-simplification means this is relatively easy to implement	Draws on propriety data/engineering approaches	
DC Load Flow Investment Cost Related/Long Run Incremental Cost	Status quo for (some) EHV distribution charging and TNUoS	Significantly more complex than existing LV and HV	
Forward Cost Pricing	Status quo for (some) EHV distribution charging	Significantly more complex than existing LV and HV, and more complex for TNUoS	
Single model across all voltage levels		Requires significant work to achieve development of a common model which appropriately reflects the attributes of all transmission and distribution networks which have different planning and construction standards	
T&D charging model different but with common assumptions	May be possible to agree common assumptions more easily than it would be possible to achieve a common model	Alignment of assumptions could be challenging given the different engineering standards which apply	
Different charging models across T&D	Avoids the need for complex work to align charging assumptions which relate to different engineering standards	Modelling differences would require enduring fix and not just interim methods	
Fixed Charges (£/year)	Easily applied to all users	Does not contain incentive	
Unit Rates (£/kWh)	Unrestricted unit rates easily applied to all users. Time bounded units rates easily applied to HH metered users. Sends a price signal	Time bounded unit rates cannot be accurately applied to NHH metered users as network company has no visibility of the time of use	
Agreed Capacity Charges (£/agreed kVA)	Easily applied to larger users with bilateral connection agreements Could be used with generators and load users grouped together.	Difficult to apply to smaller users who do not have bilateral connection agreements (unless operating as a group)	
Peak Demand Charges/Excess Capacity Charges	Easily applied to users with HH metering	Cannot be applied to users with NHH metering	
Reactive Power Charges (£/kVArh)	Easily applied to users with four quadrant metering (measuring real import/export and reactive import/export - generally larger users)	Impossible to apply for users without four quadrant metering	
Unrestricted Unit Rates	Easily applied to all users		
Static Time of Day Unit Rates	Easily applied to users with HH metering	Cannot be applied to users with NHH metering	
Critical Peak Pricing (CPP)	Easily applied to users with HH metering	Cannot be applied to users with NHH metering	
Variable Time of Day		May be challenging to calculate real time dynamic tariffs Likely to be more difficult to implement	
Inclining Block Rates	Easily applied to users with HH metering	Cannot be applied to users with NHH metering	

Efficiency of Implementation:
9 - Be Proportionate

To be assessed	Advantages	Disadvantages	Score and summary
Transport Model	Unable to judge proportionality at this stage		
Expansion Model	Unable to judge proportionality at this stage		
Remaining Headroom	Unable to judge proportionality at this stage		
500MW Model/Probabilistic Model	Unable to judge proportionality at this stage		
DC Load Flow Investment Cost Related/Long Run Incremental Cost	Unable to judge proportionality at this stage		
Forward Cost Pricing	Unable to judge proportionality at this stage		
Single model across all voltage levels		Benefits may be achievable without the need for a common model	
T&D charging model different but with common assumptions	Potential to deliver benefits of commonality without the need for full alignment of charging assumptions which relate to different engineering standards	Results in some distortion	
Different charging models across T&D		Resulting distortion	
Fixed Charges (£/year)	Simple to implement		
Unit Rates (£/kWh)			
Agreed Capacity Charges (£/agreed kVA)	Provides means of paying for 'availability' of the network even where generation is "behind the meter."		
Peak Demand Charges/Excess Capacity Charges			
Reactive Power Charges (£/kVArh)			
Unrestricted Unit Rates			
Static Time of Day Unit Rates			
Critical Peak Pricing (CPP)			
Variable Time of Day		As a method of providing an operational dispatch incentive, it may be disproportionate and detrimental to expose all users to dynamic TOU tariffs, even if many of those users cannot respond to them. Also disproportionate in comparison to alternative options for providing high resolution real time dispatch signals, such as a Balancing Mechanism approach which can provide a price signals for those users who choose to participate in the BM and therefore can respond to them.	
Inclining Block Rates			