

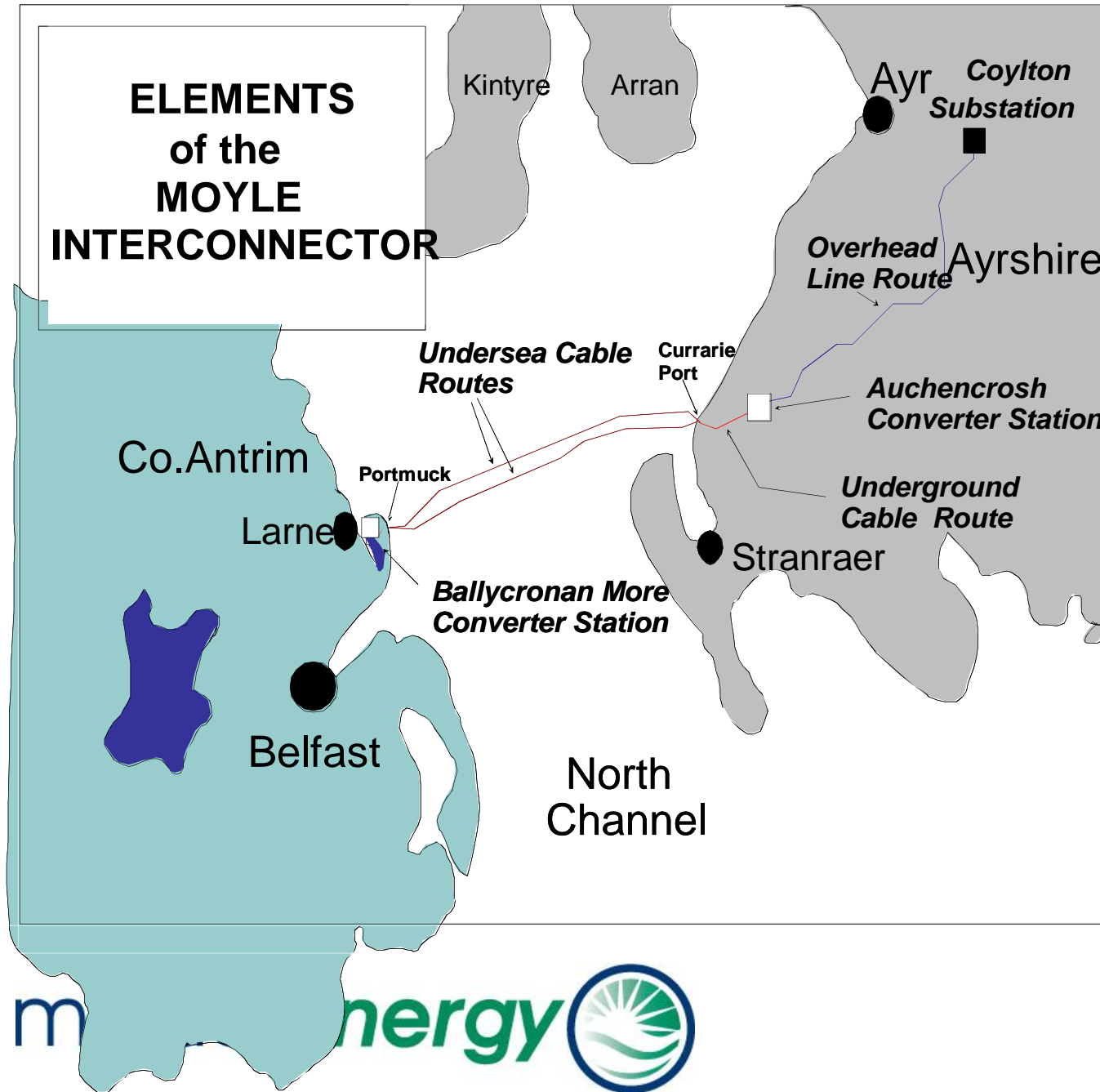


# Moyle Trading Arrangements

Paddy Larkin



- Moyle interconnector
- Trading environment
- Controlling documents
- Capacity
- Products and auctions
- Other arrangements



# Interconnectors and market prices

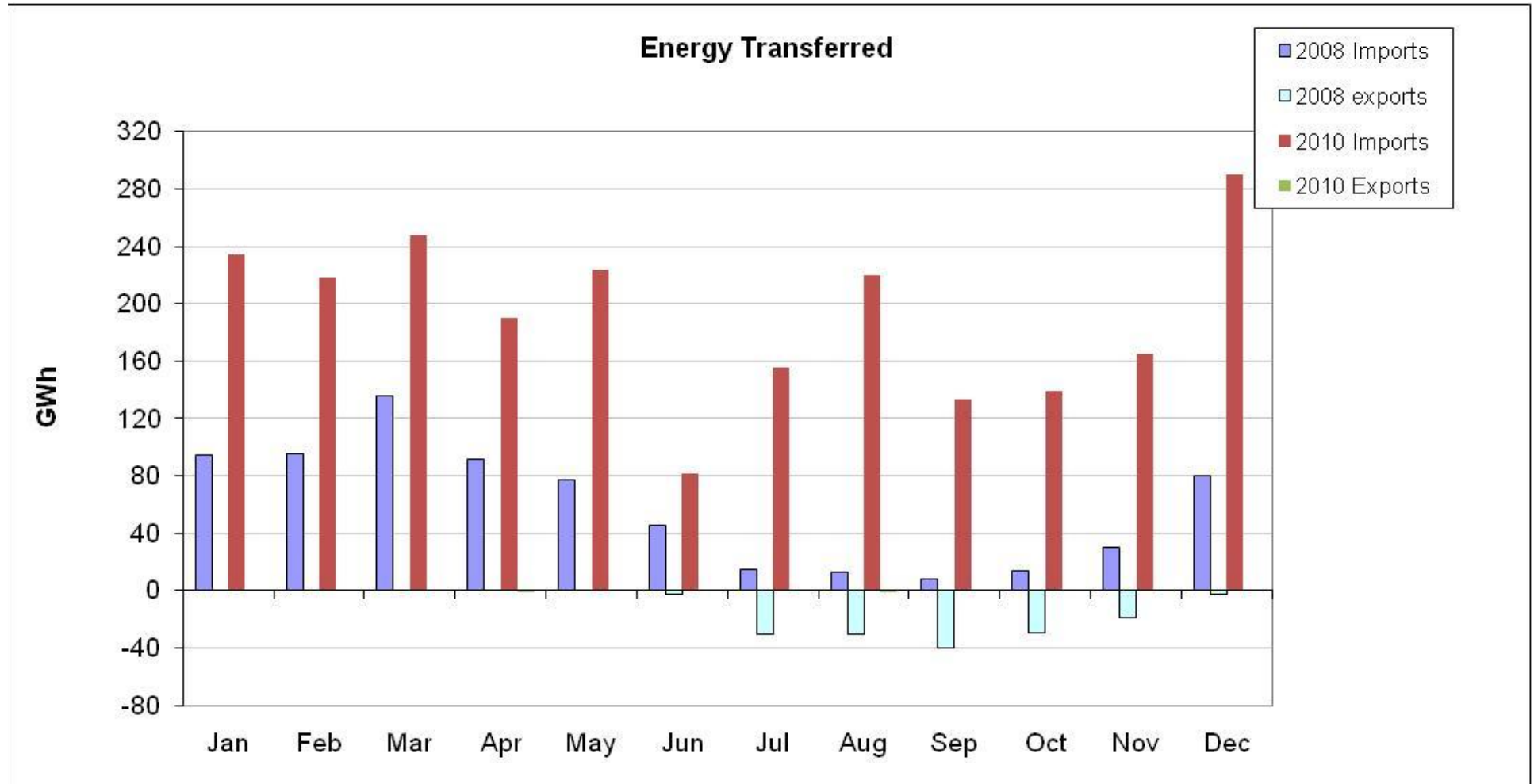
## Theory

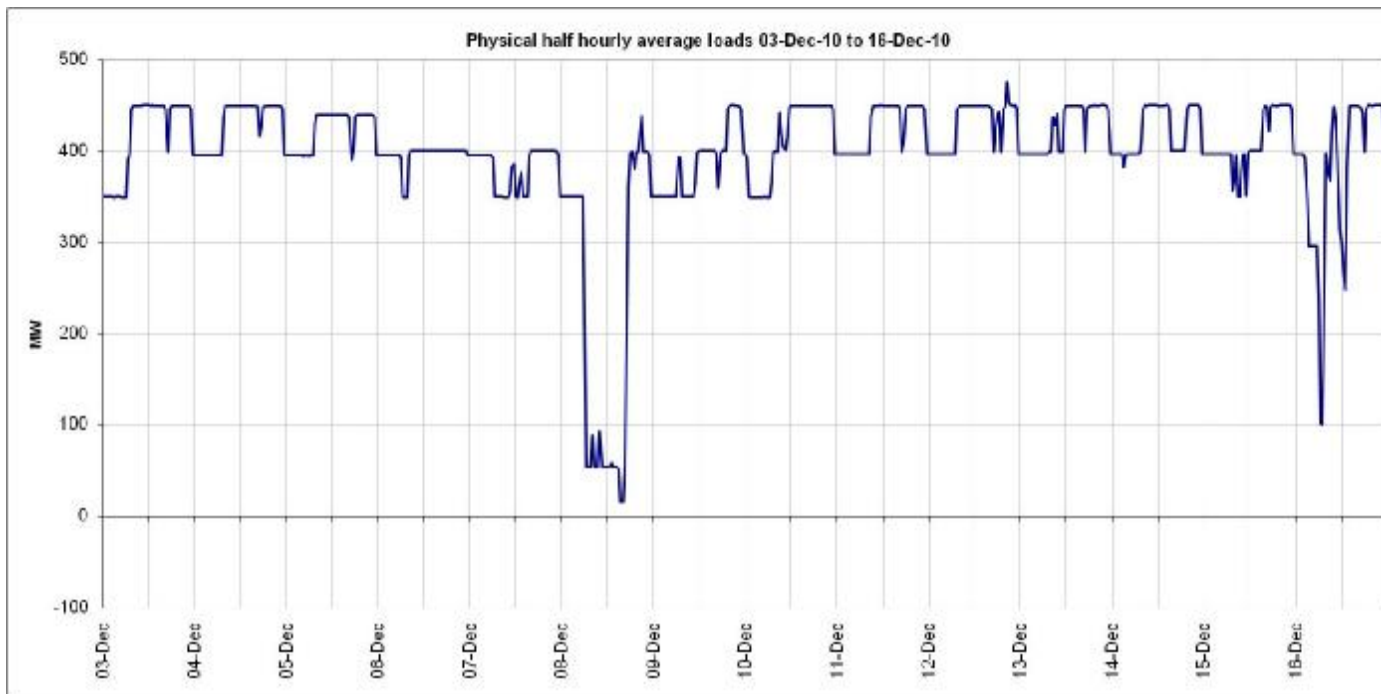
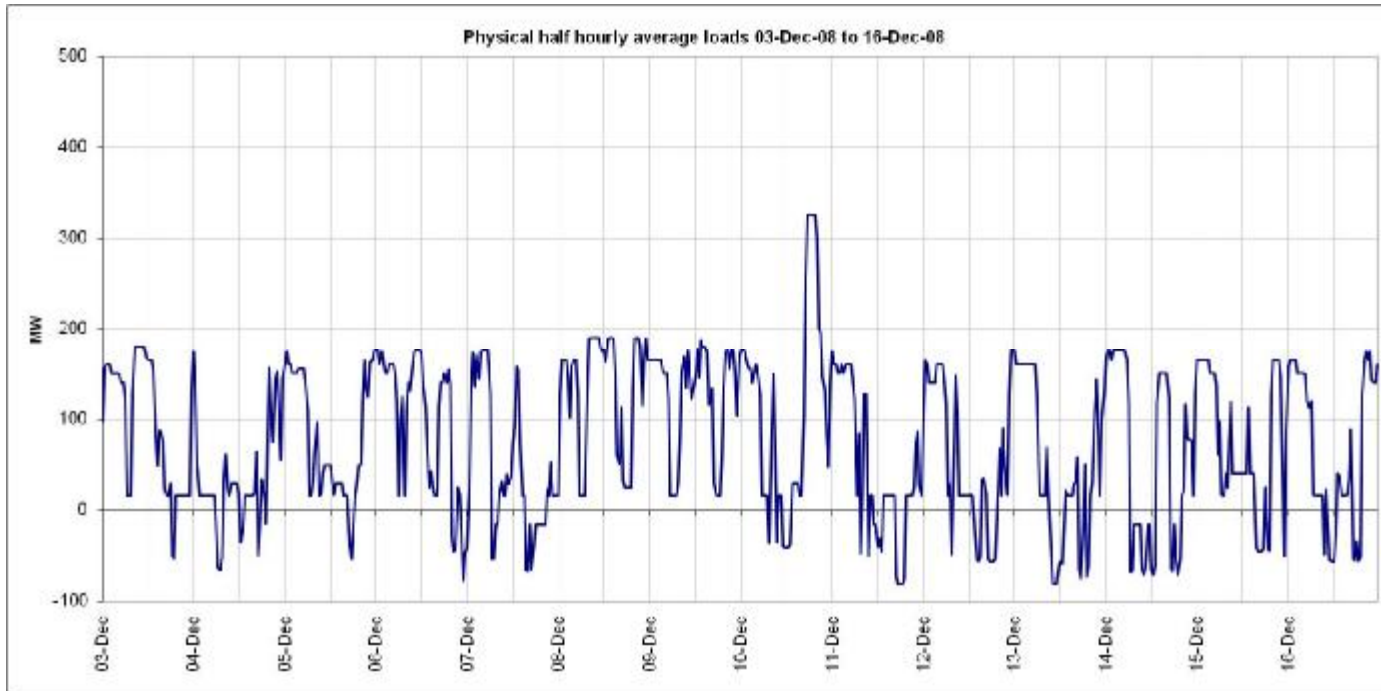
- Power purchased in low priced market increases the price in that market
- Power sold in high priced market lowers the price in that market
- Trade should continue until :
  1. Prices equalise or
  2. Interconnector capacity is used up
- SEM is much smaller than Betta market therefore price equalisation primarily results from SEM price only moving
- SEM SMP + capacity payment with Betta market price
- Interconnector capacity required to equalise prices will vary:
  1. High wind levels
  2. Plant shortage/ over capacity
  3. Similar / dissimilar generation fleet
  4. Market rules

## Markets

- Forward Markets
- Day ahead Markets
- Half hourly markets
- Balancing market
- Real time response

But are these markets sufficiently liquid?





# Trading Environment

- Trading improvements
  - More granular products
  - Simplify and automate auction process
  - Offer more capacity
  - Remove barriers to trade
  - Alignment with other borders
- EWIC coming on stream
  - Linking same markets so need effectively same access arrangements
- Compliance/ alignment with EU rules
  - Still legal argument over the applicability to Moyle
  - However EWIC required compliance will drive Moyle alignment
  - Same effect for IC users
  - Moyle already mostly aligned to the extent that the SEM and interconnected systems allow

# Trading Environment changes

- Milestones for change
  - Autumn 2011 – Introduction of computerised auction system for Moyle
  - First auctions on EWIC – [2012]
  - Market intraday gate closures [2012]
- Process
  - 2 consultations in 1<sup>st</sup> half 2011
  - 1 minor consultation to revise arrangements for auctions prior to new system – this will include next round of long term auctions
  - 1 major consultation to deal with arrangements for auctions when new system goes live
  - Training, contract revisions are expected
- Presentation Theme
  - Describe current access arrangements
  - Considers how these might change
  - Does not address use of capacity in SEM/Betta
- Note: Changes subject to consultation and approval by [NIAUR]

# Moyle Controlling Documents

- Licence
  - Establish and periodically review access arrangements, approved by NIAUR
  - Maximise revenue in line with access arrangements
  - No discrimination between persons acquiring capacity
  - Capacity charges shall not distort competition
  - SONI must run auctions, act as Interconnector Administrator, act as Interconnector Error Unit
- Capacity Framework Agreement
  - Standard form agreement sets the legal relationship between User and Owner
  - Schedule 5 (Framework Deed) sets the relationship between USER and SONI as IA
  - References access arrangements
  - Requires compliance with system documents (TSC,BSC etc)
  - Sets security requirements
  - Capacity rights lapse at gate closure
  - Rebates for ATC changes
  - Assignment and Novation arrangements
- Access Arrangements
- Invitation to Bid
- TSC, Moyle Interconnector procedures

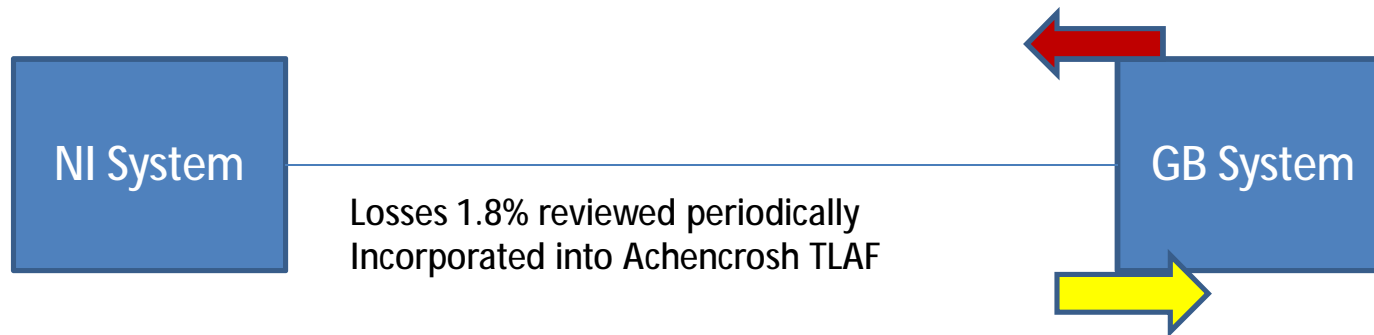
# Moyle Controlling Documents

- Licence
- Capacity Framework Agreement
- Access Arrangements
  - ATC, Capacity product types, durations and quantity minimums
  - Auction type, process, timing boundaries
  - Maximum reserve price
  - Basis of decisions where Moyle discretion is allowed
  - Sales after auction close and gate closure
  - Publication of certain information
- Invitation to Bid
  - Specific product type, quantity on offer, allocation method
  - Specific auction timing
  - Describes non standard product if offered
  - States basis and process for pass through charges
  - States current interconnector losses, measurement point
- TSC, Moyle Interconnector procedures
  - Interface with market, including calculation of MIUN's to include ramping and deadband

# Moyle Capacities



Moyle 500MW +  
 GB 450MW (technical and commercial)  
 NI 410MW summer (technical and commercial)  
 460MW winter (technical and commercial)



Moyle 500MW +  
 GB 450MW (technical)  
 287MW summer (technical and commercial)  
 332MW spring/ autumn (technical and commercial)  
 360MW winter (technical and commercial)  
 NI 295MW (technical and commercial)

ATC dependent only on availability of Moyle and Scotland single circuit connection



# Products and Auctions



Term	Period	Min quantity MW		No of auction iterations	Products	Action timing	
		E-W	W-E				
Annual Oct – Sept	Y+3	60	0	3	Base load	5m – 4w ahead of Y+1 start	
Annual Oct – Sept	Y+2						
Annual Oct – Sept	Y+1	210	30				
Annual Jan - Dec	Y+1	0	0	1			
Annual Apr - Mar	Y+1	0	0	1			
Half yearly Oct-Mar, Apr-Oct	HY +1	15	10	1			
Quarterly Oct-Dec, Jan-Mar Apr-Jun, Jul - Sep	Q+1	10	5	1			2w – 3m ahead
Monthly Day 1 – Day EOM	M+1	60	10	1	Base Load Pay as you go	5d-1m ahead	
All capacity offered in 5MW blocks All periods start and end at 06:00 at 06:00 Unsold capacity goes forward to next auction							

Future ?  
 Products  
 Block size  
 Granularity  
 Auction iterations  
 Period start time



# Products and Auctions



## Auction type

- Auction announced 5d-4w in advance
- Pay as bid
- Reserve price
- Sealed Envelope
- NIAUR present
- No security required to bid
- Same winning bid = split pro rata then discretionary
- 10:00 auction gate closes, winners announced by 15:00 latest
- Published = Quantities allocated, weighted average of accepted bid prices

Future ?



# Other arrangements



- MIUN calculations – overlays ramping on aggregate flows (10MW/min and +/-15Mw deadband on market accepted bids)
- Credit cover required – 3 months capacity charges (LOC, appropriate rating, PCG, cash deposit)
- Payments, monthly in advance (in arrears for monthly capacity)
- Unexpected outages = capacity charges rebated (approximately beyond 0.5% unavailability)
- Secondary trading arrangements
- Pass through costs (GB TNUoS)



# Further information



<http://www.mutual-energy.com/>

Framework Agreement

Access Arrangements

Current and Historic

- Capacity allocations

- Auction prices

- Outages

- Physical flows

<http://www.soni.ltd.uk/>

Framework Agreement

Invitation to bid forms

Individual auction results

Auction timetable for year

