

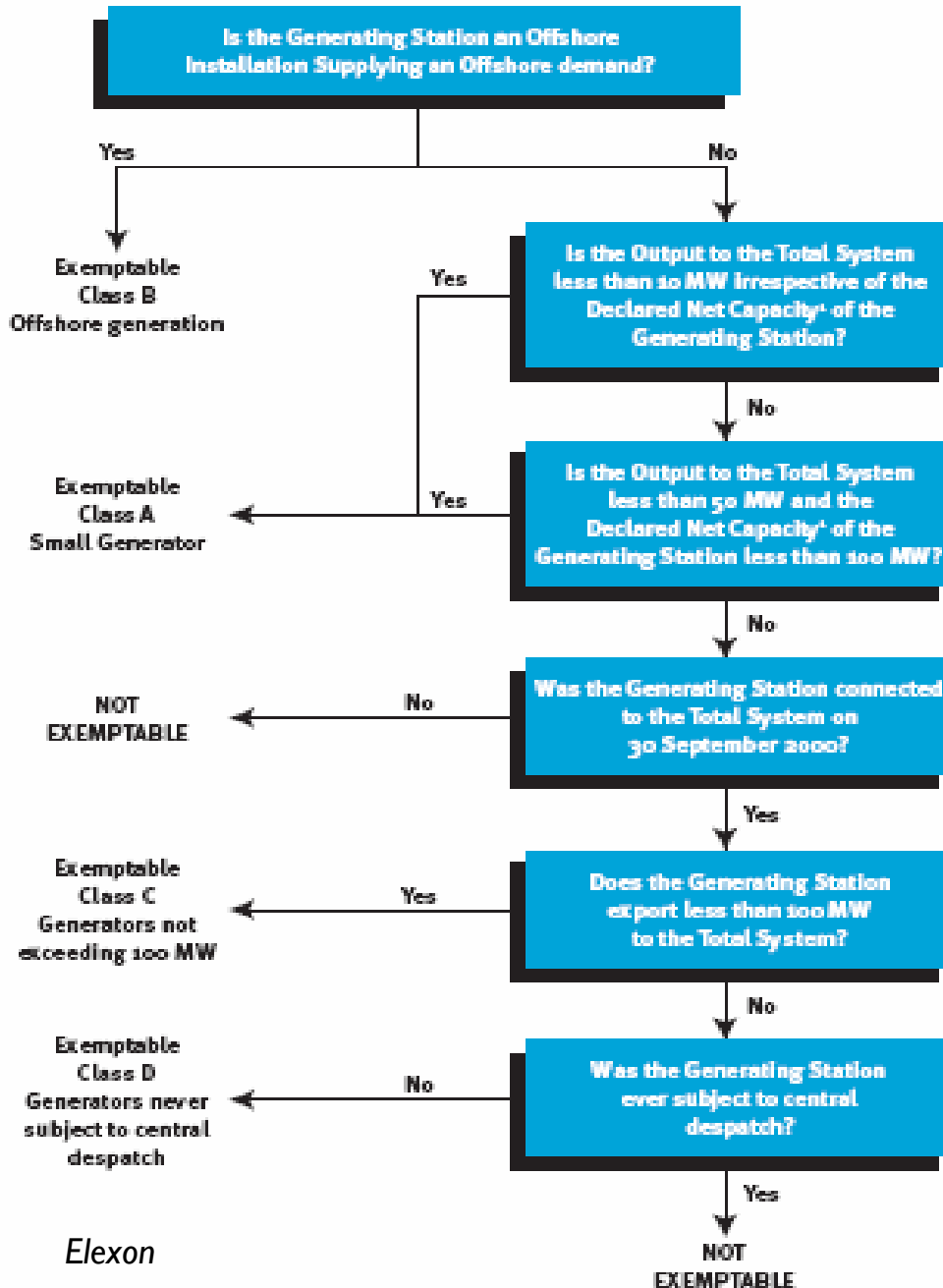
Market access for distributed generators

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DEWG, 10 September 2007



Do you need a licence?



Capacity factor

Tidal/wave	0.33
Wind	0.43
Solar	0.17
Others	1.00

Code requirements (I)

MW	National Grid	Scottish Power Transmission	Scottish Hydro Electric Transmission
> 100	Large	Large	Large
50 - 100	Medium EEMPS if Embedded and Exempt	Large EELPS if Embedded and Exempt	Large EELPS if Embedded and Exempt
30 - 50	Small EESPS if embedded	Large EELPS if embedded	Large EELPS if Embedded
< 30		Small EESPS if embedded	
10-30			
<10			Small



Licensable if post 2000



Bega

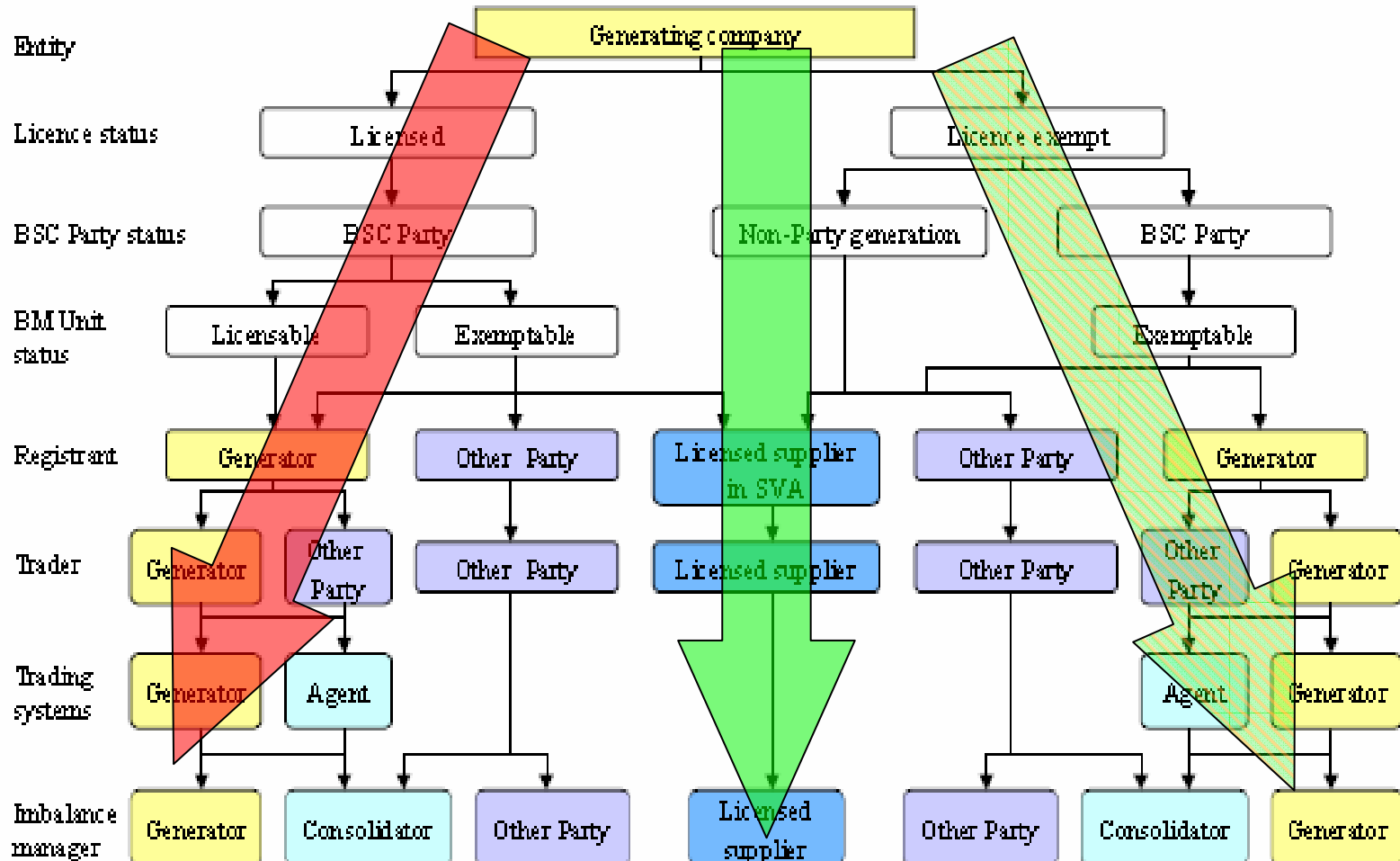


Bella

Code requirements (2)

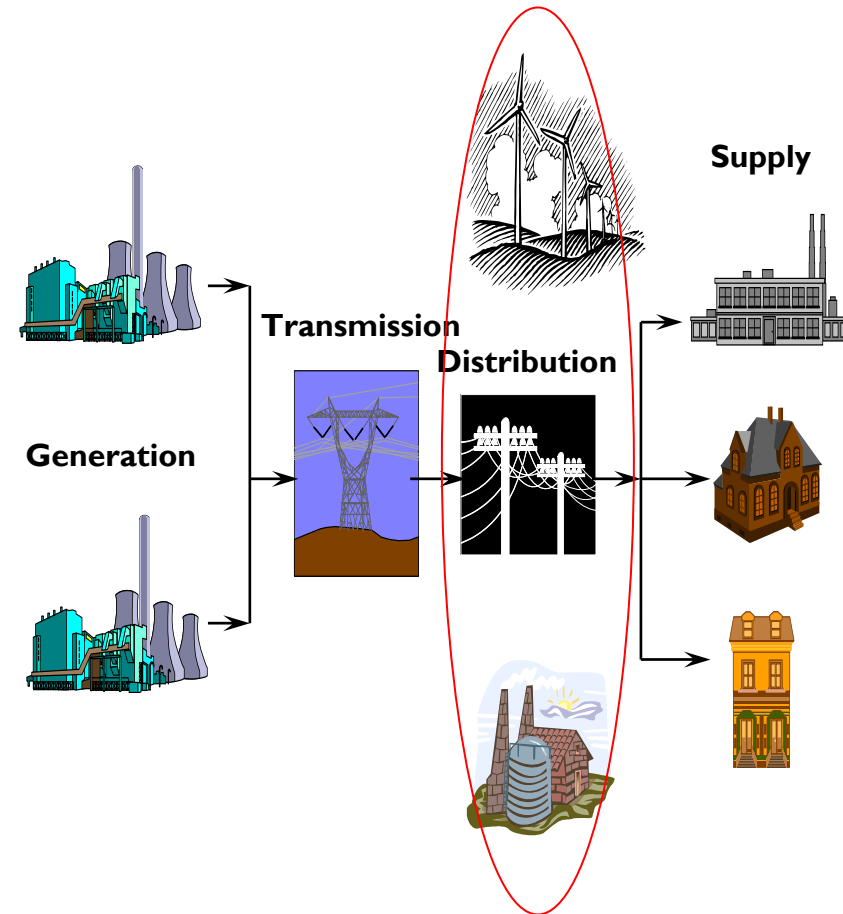
- BSC mandatory for all licensees/generators >50MW
- Optional for any one less
- In effect all large and medium exempt generators must have a contract with NGET
- All generators wishing to claim embedded benefits direct must have contract with NGET
- All Cusc signatories must be BSC signatories unless meter registered by supplier in SVA

Trading options for small generators

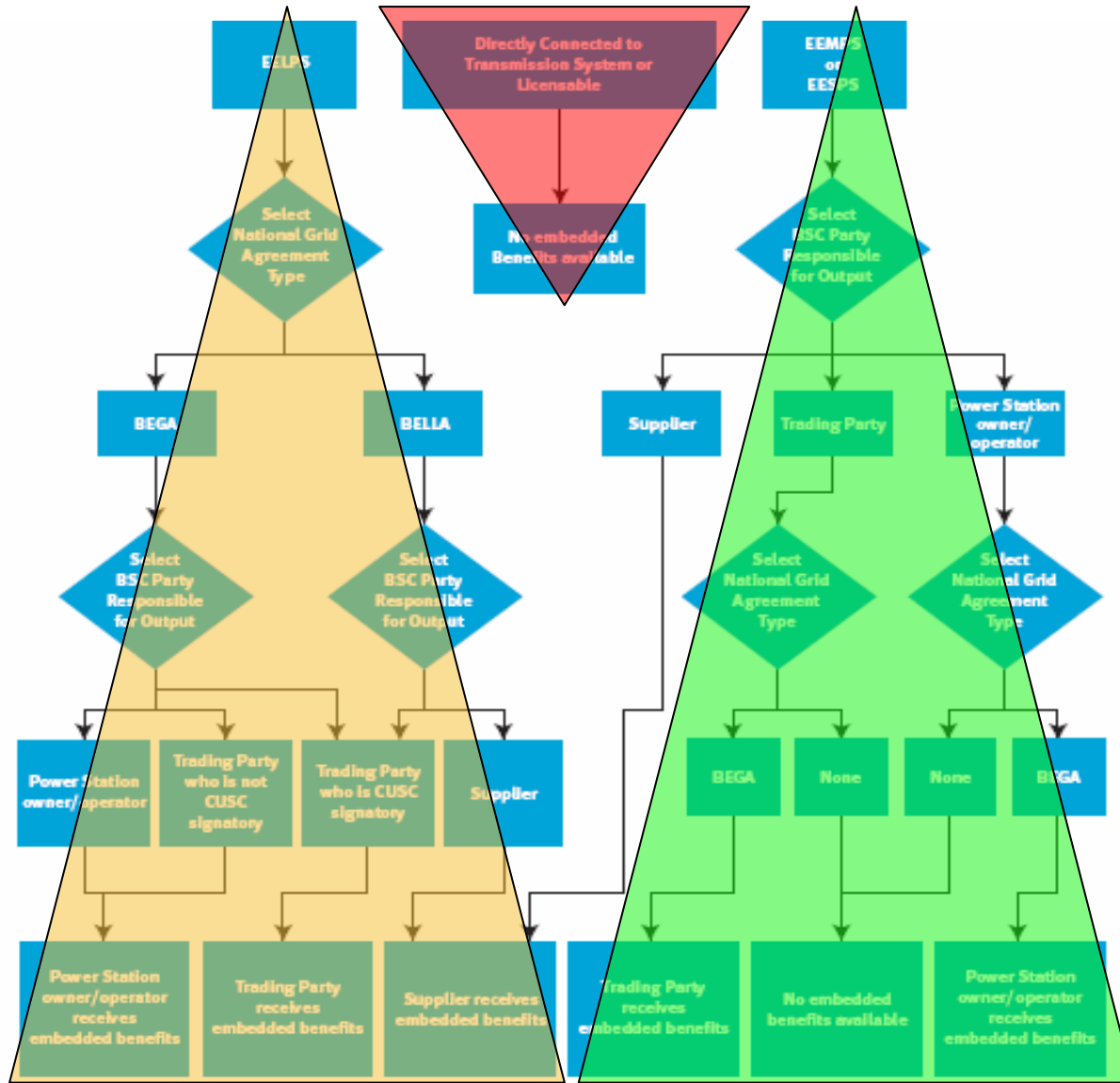


Embedded benefits – theory I

- Financial benefits available to generators embedded in distribution networks
- Avoided costs to the supplier from not using transmission
- Transmission network use of system charges (triad)
- Transmission network losses
- Balancing services use of system charges (BSUoS)
- Vary by time and location
- Principles are nationwide, practice is location-specific



Embedded benefits – theory 2



Deepen licence exemptions

- Enable local supply through new supply exemption:
 - off-site
 - with limitations
 - size limit (<50MW?)
 - non-domestic or through certain meter/profile types
 - related undertaking
 - tied to generation exemption
- What is surplus supply or back-up needed?
- Obligation to offer terms (but on who?)
- Generation exemptions could do with tidy up too

New class of supply licence

- Enable local supply through new supply licence:
 - with limitations
 - size limit (<50MW?)
 - non-domestic or through certain meter/profile types
 - related undertaking
 - tied to generation exemption
- Scope for Esco licence?
- What is surplus supply or back-up needed?
- Need to address compliance issues under supply licence:
 - Code compliance and meter registration (“exempt trading unit”?)
 - scope for discharge by agent

Centralised purchasing role

- Agent effectively acting as a local consolidator
- Clear threshold so as not to impair incentives for existing consolidators
- Would provide settlement route but at what price
- Diversity benefit but still need to manage imbalance
- Add to SO imbalance and settle at administered price?
- Alternatively feed-in arrangement:
 - administered by DNOs?
 - offset-able against physical losses?

Regional agents

- By GSP Group
- Purchaser of last resort with suppliers tendering for role
 - requirement to offer terms?
- Guaranteeing price for output below specified threshold
- Supplier/consolidator would deal with meters/output in “usual” way
- Similarities with outline models proposed through TADG for DG paying TNUoS

Final thoughts

- High level options
- Exemptions clearly needs further updating
- Short-term fix would be to deepen supply exemptions
- Longer-term requirements of orderly settlement and market development means that more radical approaches based on agency model should be considered sooner rather than later