

Significant Code Review Seminar



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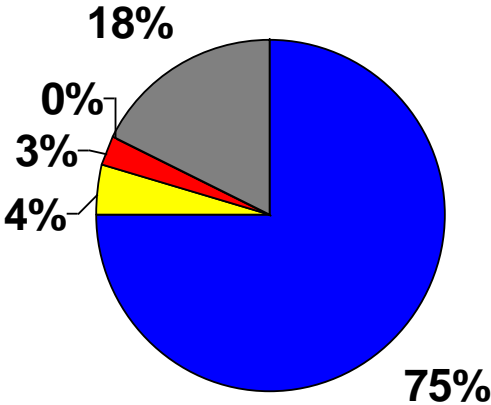
Agenda

- Rationale for review
- Roles of NGG
- States of market operation & role of participants
- Emergency Stages
- Challenges

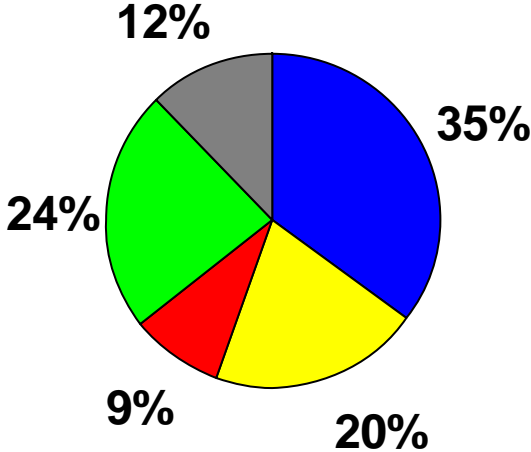
Changing Gas Supplies

Typical 450mcm demand day

Winter 02/03



Winter 10/11



Role of NGG as the System Operator

■ Safety

- Primary Legislation underpinning safe control of operations

■ Economic and Efficient operation of the NTS

- System Operator balancing role is described in System Management Principles Statement
- Undertake Residual Energy Balance
- Provision of Entry and Exit capacity
- Provision of market information

Safety role governed by Health & Safety at Work Act

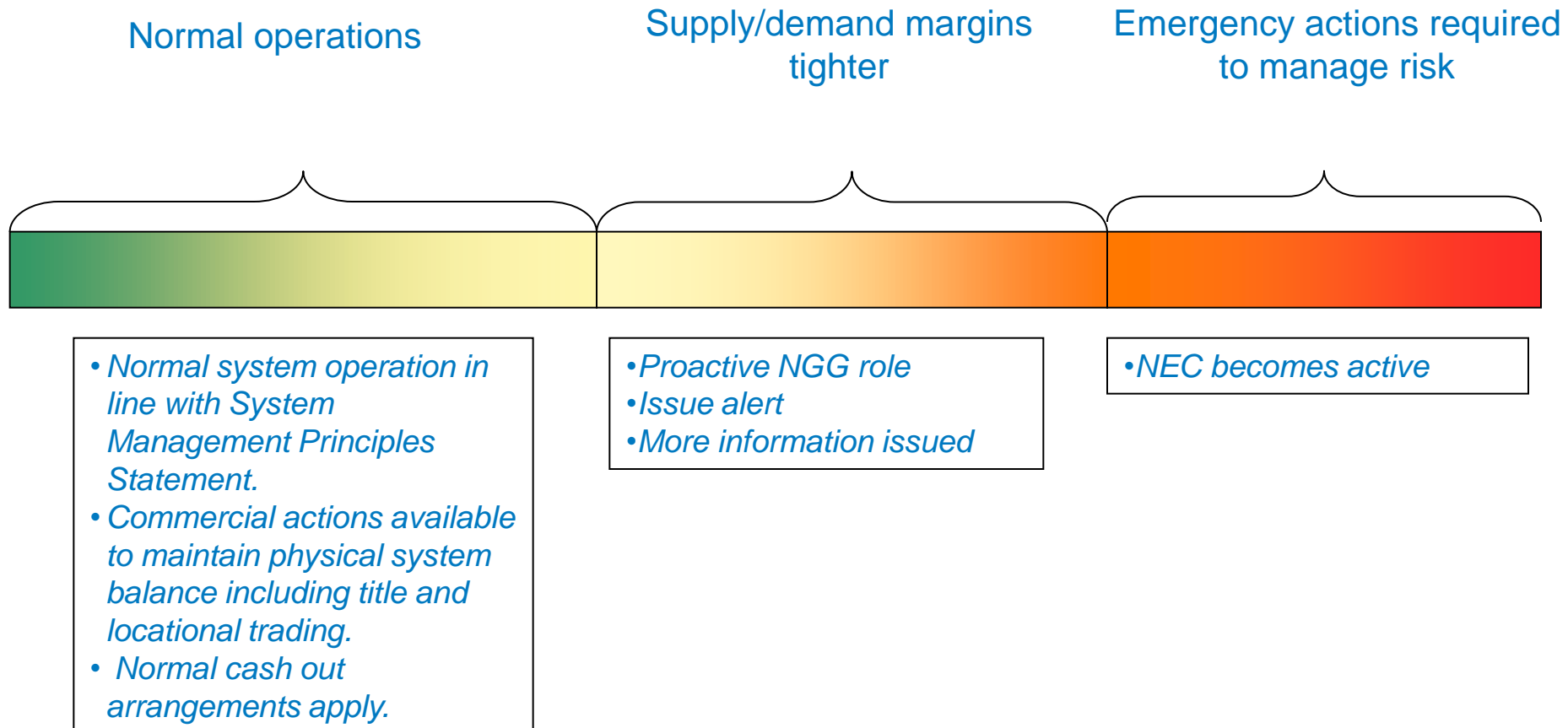
Other SO activities covered by Transporter Licence and UNC

Role of NEC

- **NEC role currently undertaken by NGG, distinct from System Operator**
- **Co-ordination of actions of the gas industry to avoid, or minimise impact of, a supply emergency**
 - Primacy is upholding Public Safety by managing risk of unstable pressure
 - Specific but significant powers given under GS(M)R
 - Limited to managing emergency from physical perspective
- **No commercial vires or interests**
- **Key objective is to effect network pressure stabilisation utilising supply/demand management as fast as possible**
- **Industry Parties have a Duty to Co-operate with the NEC in pursuit of above**

Role of NEC determined under Health and Safety at Work Act

States of market operation



Normal operations

Market Participants	National Grid (System Operation)	NEC
Commercially incentivised to balance their portfolio	Efficiently manage the NTS in accordance with the System Management Principles statement	N/A
Required to provide NGG information	Facilitate and monitor physical flows onto and from the system	
	Incentivised to maintain a light touch in balancing the system	

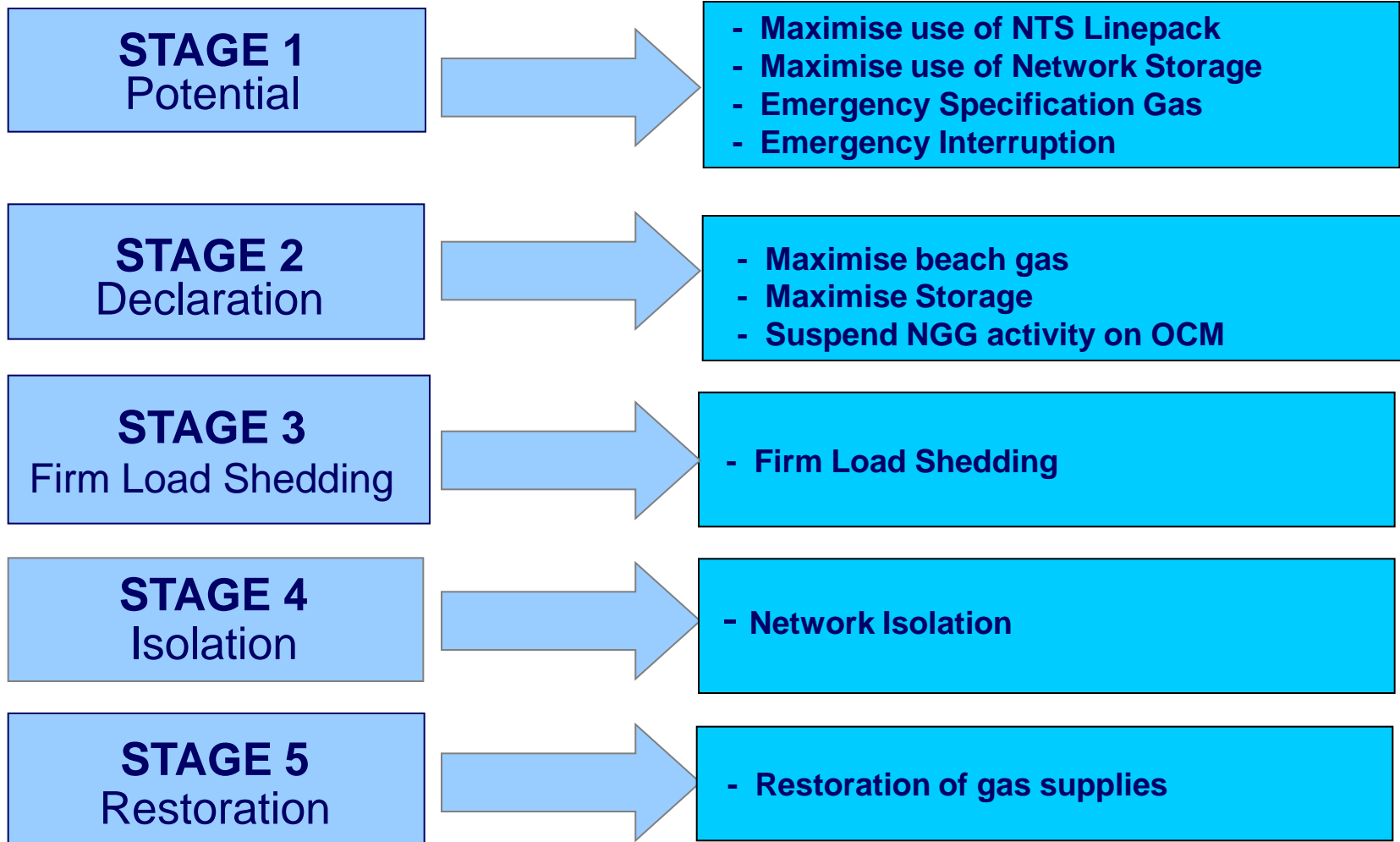
Supply/Demand margins tighter

Market Participants	National Grid (System Operation)	NEC
Commercially incentivised to balance their portfolio	Efficiently manage the NTS in accordance with the System Management Principles statement	N/A
Required to provide NGG information	Facilitate and monitor physical flows onto and from the system	
Likely to seek out available supply/demand measures in response to information from NGG	Incentivised to maintain a light touch in balancing the system	
	May issue GBA and be commercially active to remedy any physical imbalance	

Emergency Actions required

Market Participants	National Grid (System Operation)	NEC
Commercially incentivised to balance their portfolio	Formulates strategy for management of emergency	Approves & authorises emergency strategy
Required to provide NGG information	Actions can include: <ul style="list-style-type: none"> • Maximise Supplies • Curtailing load 	
Duty to co-operate with NEC		

Emergency Actions available



Challenges for review

- Focus on prevention of emergency
- Improve oversight / transparency of supply arrangements
- If emergency occurs, need to have clear roles and responsibilities defined
- Must be able to demonstrate that changes to arrangements retain or improve existing levels of safety