

Governing for Innovation Without Disruption in Energy Systems

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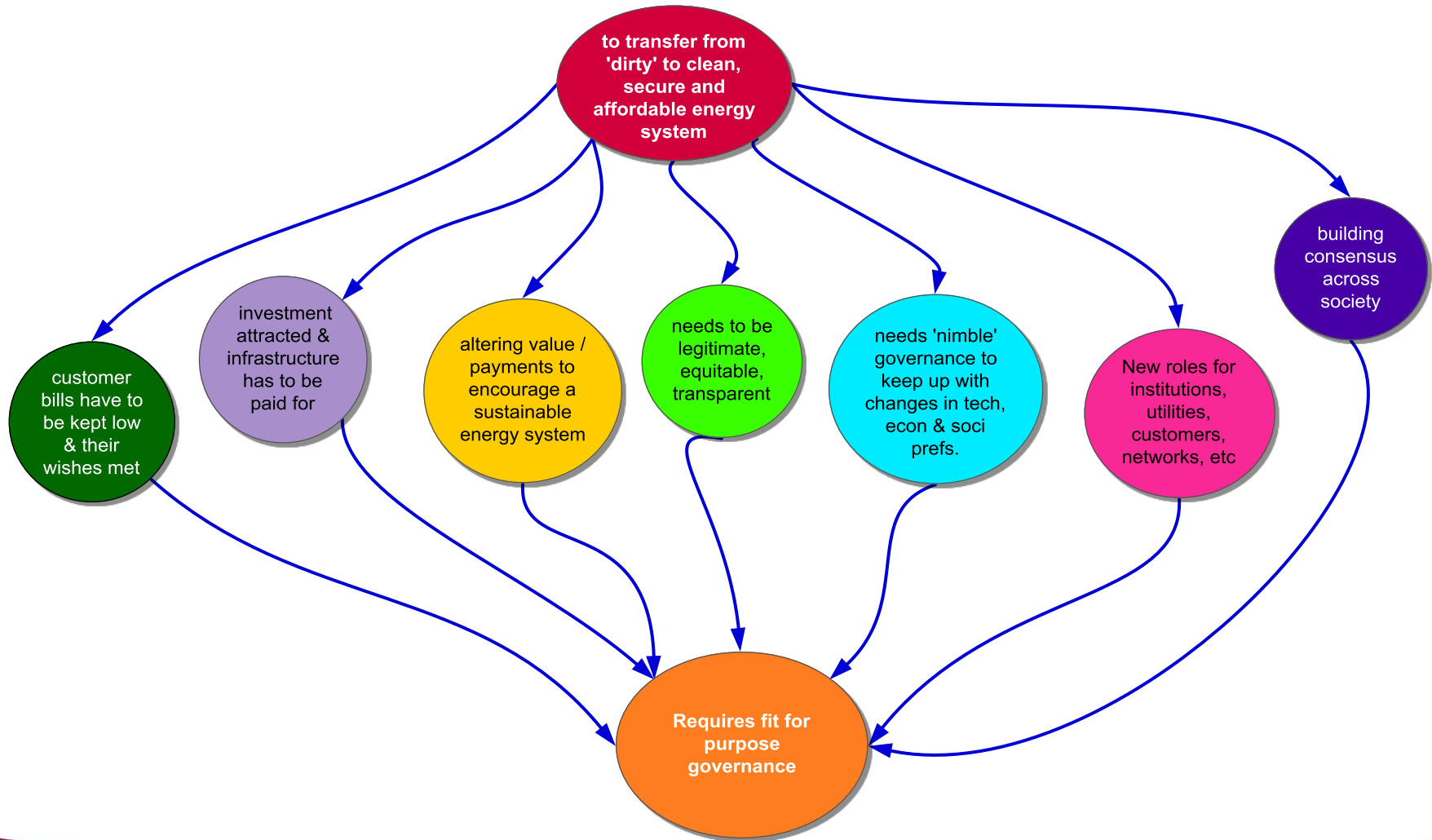
New Thinking For Energy



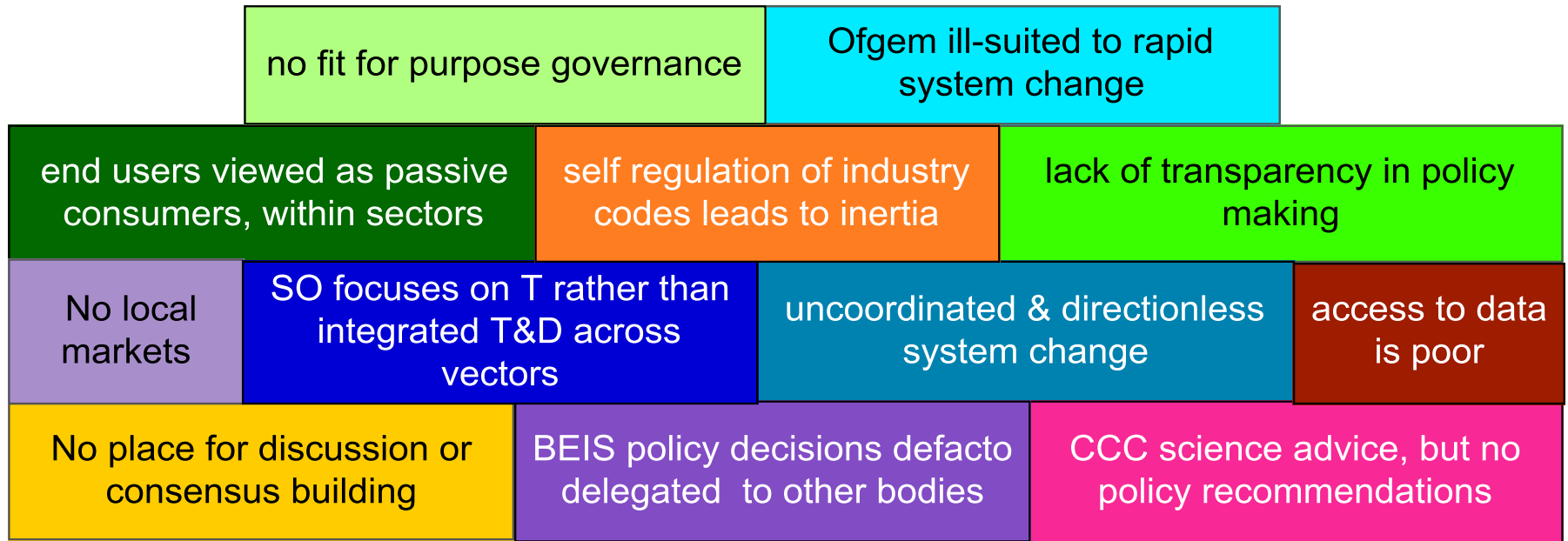
Overview

- There is an enormous amount of change going on in energy systems (technology (supply, demand and operation); economics; social preferences; environmental understanding, business models etc) which is leading to uncertainty
- Given this situation, energy policy decision-makers, when encouraging innovation:
 - have to make the ‘right’ decisions, then
 - be constantly vigilant about unforeseen consequences, and then
 - be prepared to ‘re-set’ the policy to get it back on track
 - this requires a clear Vision and Direction
 - This is designing governance (policies, institutions, market and network rules and incentives) to encourage a sustainable future, and then letting markets work within that framework
- This paper is focused on energy system ‘disruption’ from a Government decision-makers point of view
 - It argues that the GB energy system is likely to suffer serious disruption in the near to mid term unless GB restructures its governance system to be fit for purpose to enable innovation rather than stifle it, as is the current situation
- The paper
 - Sets out general challenges facing energy system transformation
 - Sets out the additional, specific challenges faced by GB
 - Sets out principles of institutional reform
 - Sets out the solutions for the GB problems: the IGov framework

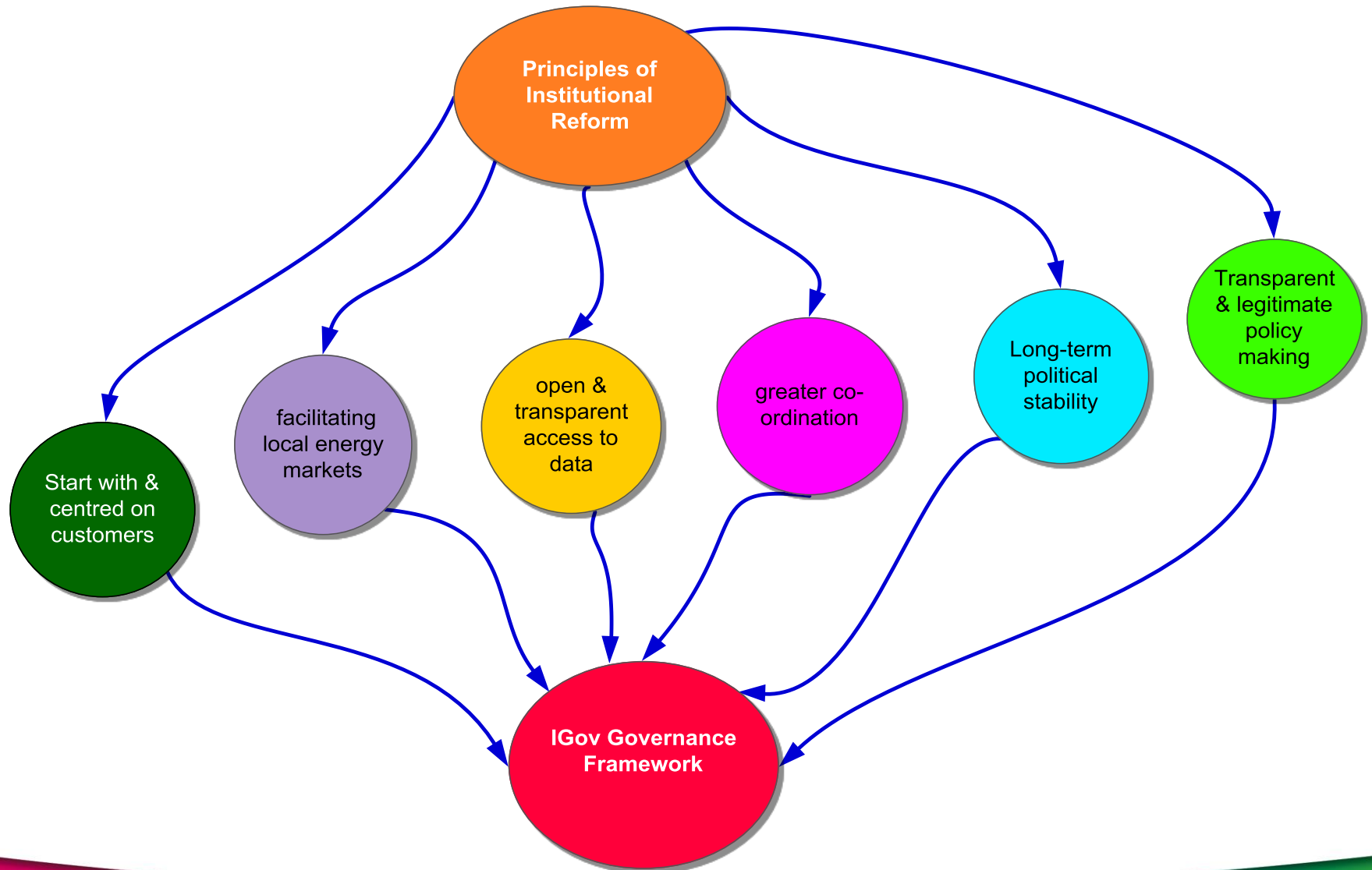
General challenges of transforming energy systems



Specific GB problems to solve



Principles of Institutional Reform



FYI – Too Small to Read - Matching Challenges and Problems to Solve to Institutional Solutions of IGov Framework

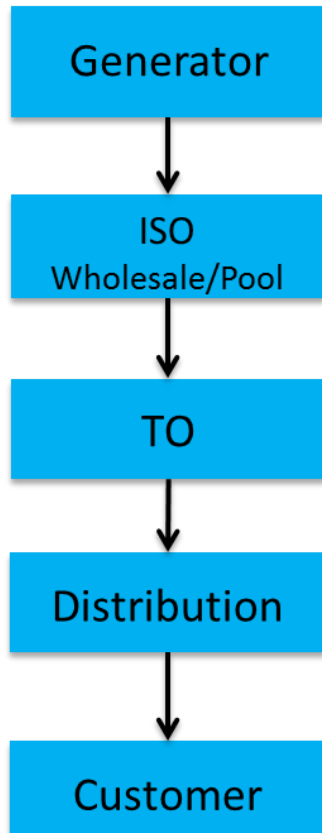
General Challenges	Specific GB Problems to Solve	Institutional Solutions
	Change in system occurring in an unco-ordinated way with no meaningful control of direction, and with unforeseen outcomes which often have dysfunctional responses	IGov Framework
	CCC provides advice on science and GHG budgets but no ability to recommend policy (and infrastructural) responses to meet GHG reductions	CCC budgets linked to IISO outputs
	DECC / BEIS meant to take high level policy decisions, and then pass them on to other bodies for execution. Q on whether they have sufficient expert capacity.	Political nature of energy recognised, BEIS takes decisions, IISO directed to meet CCC targets, Ofgem economic regulates only
	Ofgem was set up as an economic regulator which now has environmental and social responsibilities added – de facto making policy trade-offs which major distributional impacts and a significant amount of de facto decision making in electricity operation to National Grid, despite conflicts of interest	BEIS takes decisions, with advice from CCC and Consensus Building Body, whilst IISO responsible for security and infrastructure to enable meeting the CCC budgets
	System operation focuses on transmission rather than on T & D, and with insufficient integration across electricity, heat and transport	Integrated and Independent System Operator, on same level of hierarchy as economic regulator and working directly to BEIS and delivering a SO which can meet CCC budgets
	Self-regulation of industry codes leads to inertia, complexity, de facto policy and opaqueness	Code body, without self-regulation, working to IISO
	Access to data is poor, and will get worse with more ICT, means that it is difficult to know the value of new services	Data Body for free, accessible data + market monitor
Altering value /payments to encourage a sustainable energy system	Much of change relates to the demand side, at the local level with new services yet no local markets; and the payment of value for system services, storage and DSR is minimal	Distribution Service Providers, IISO, local markets
Investment has to be attracted and infrastructure paid for	Chopping and changing of policies and inflexible regulatory system	Consensus Building Body, Data Body, Market Monitor, greater use of outputs based regulation, IISO leading to greater co-ordination, transparency, legitimacy
Customer bills have to be kept low and their wishes met	Customers seen in traditional sectoral distinctions as opposed to their engagement to system	Customer-focused energy system, distribution service provider which assigns values to services, including (potentially) those from customers
Insufficient Consensus Building	No obvious place for transparent discussion and reaching of consensus	Consensus Building Body
Needs to be legitimate, equitable, and transparent	Multiple bodies for EP execution which de facto undertake policy making, lack of co-ordination, lack of consensus building, is undermining of transparency and legitimacy of EP and leading to lack of trust	IGov Framework
Needs nimble governance to keep up with changes in technology and operation, social preferences	Large, bureaucratic and slow Ofgem which is ill-suited to rapidly changing energy system	Ofgem pared back to being an economic regulator

Matching Principles to Institutional Reform within the IGov Framework

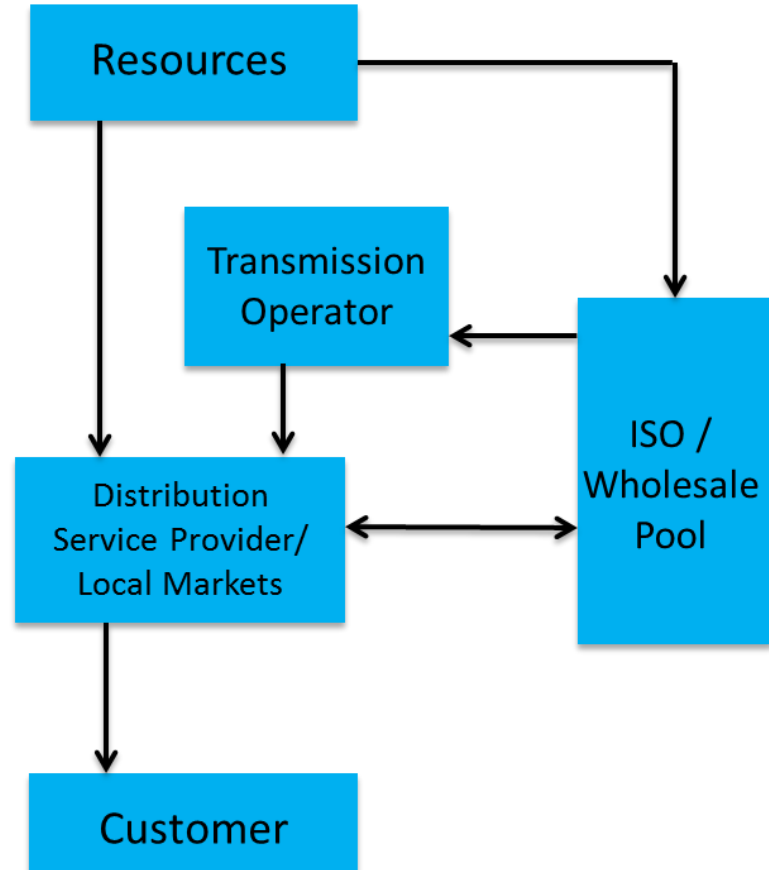
Principles of Institutional Reform	Institutional Reform
Energy System Centred on Customers	DSPs, local energy markets, bottom-up optimisation via DSPs and IISO
Facilitating Local Energy Markets	DSPs
Open and Transparent Access to Data	Data Body, Market Monitor
Greater Co-ordination	Consensus Building Body, IISO to enable the meeting of CCC budget, BEIS taking decisions, Ofgem as economic regulator only does economic regulation
Long-term Political Stability	Consensus Building Body
Transparent and Legitimate Policy-making	Greater coherence of decision-making; less delegation from BEIS to other bodies

New Institutional Framework?

Traditional



NY REV



Fit for Purpose IGov Framework

