



Review of Generic Design Assessment (GDA) Pilot (2015) for New
Nuclear Build in Anglesey, UK:
Lessons for Engagement Practice, Contributing to a Theory of
Social Sustainability for Local Communities

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Outline

- Introduction
- Our approach to energy dialogue
- New nuclear build and the Generic Design Assessment (GDA) and Public Dialogue Pilot Project
- GDA findings and observations
- Conceptual framework for social sustainability
- GDA learning for theory of social sustainability
- Future work



Introduction

- Conceptual approach - social sustainability. Priorities for communities (Whitton et al (2015)) – visioning sustainable futures.
- Compare our approach to that of GDA – learning
- New Build is on existing nuclear licensed sites
- Possible to have informed discussions with nuclear communities to identify social priorities – *conceptual framework later*
- **Case Study** - Wylfa (Anglesey, North Wales) began operation in 1971 and is due to cease operation in December 2015



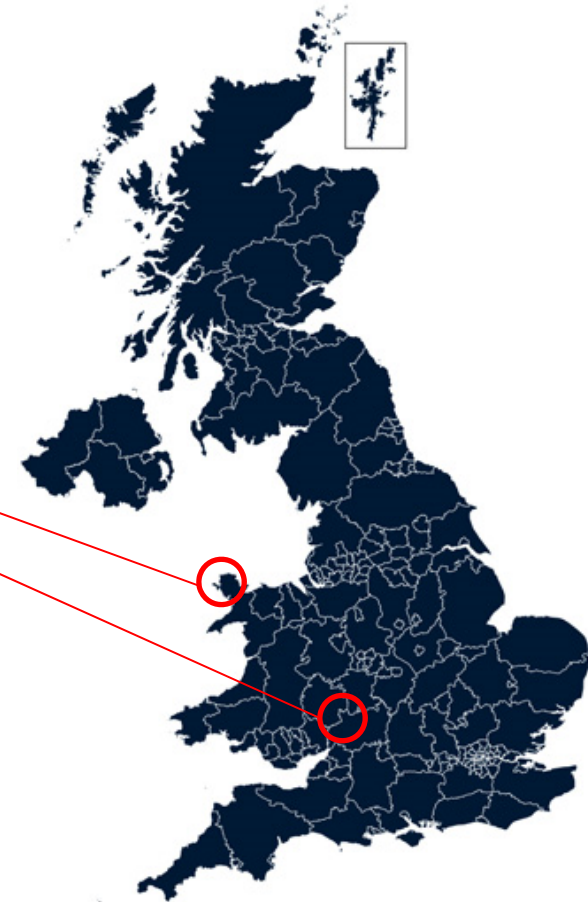
Our Approach

- **Community development** – *community led, asset based* approach required for *social sustainability* to be defined - context of *energy developments*
- **Aim** - social sustainability for ‘energy communities’ through *building social capital*; focusing on *community assets* not deficits, and defining *their social priorities*
- **Process** – *deliberation - understanding and self-awareness of social sustainability* so that a community is well placed to enter discussions with government and industry regarding *large energy developments that will directly affect them*



U.K. New Nuclear Build: GDA Pilot

- 8 proposed new nuclear power stations (England (7) and Wales (1))
- Horizon Nuclear Power have proposed new power stations for two sites in the U.K. :
 - Wylfa Newydd, Anglesey (Wales)
 - Oldbury, Gloucestershire (England)
- Horizon Nuclear Power are proposing the new nuclear reactor design of the **Advanced Boiling Water Reactor (ABWR)**, developed by Hitachi-GE and currently undergoing **Generic Design Assessment (GDA)**





Generic Design Assessment (GDA) and Public Dialogue Pilot Project

- What is GDA?
 - Enables nuclear regulators (*Environment Agency (EA)/Office of Nuclear Regulation (ONR)/Natural Resources Wales (NRW)*) assess *safety, security and environmental implications of new reactor designs* before an application to build and operate at a new site is made.
 - Allows regulators to influence design to *ensure people and environment are protected*. It aims to be a *robust, open and transparent multi-step process* spread over several years.
- Purpose of the Public Dialogue Pilot?
 - To engage members of the public in a dialogue to *identify the needs of the wider public* in relation to engagement, in the joint EA / ONR / NRW Generic Design Assessment (GDA) of *new nuclear reactor designs*.



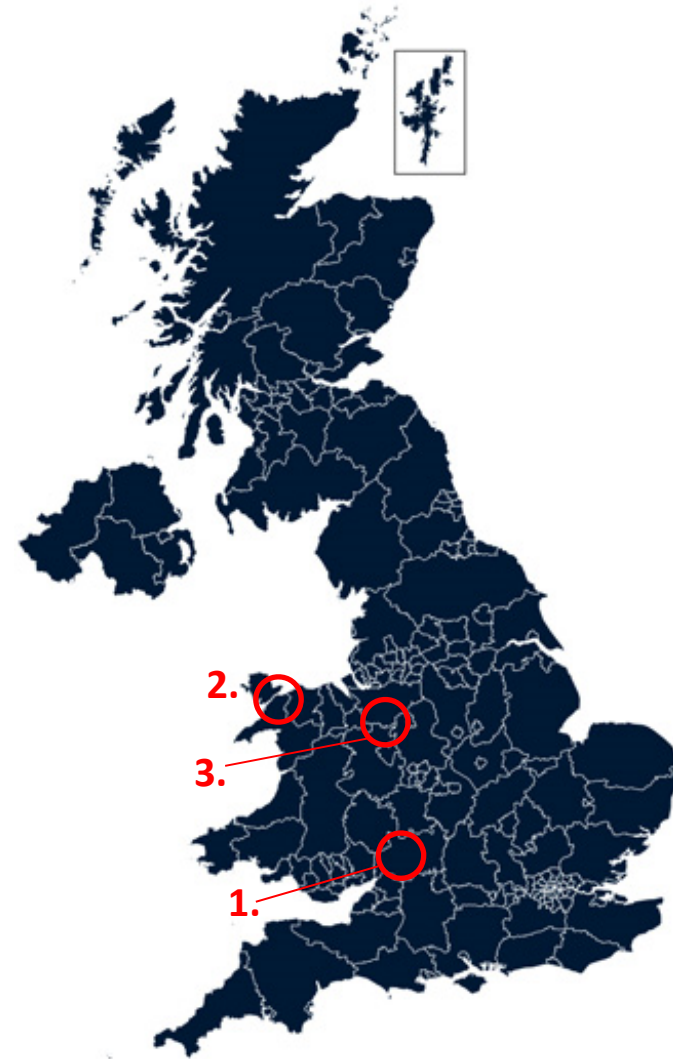
GDA Public Dialogue Pilot Objectives

- Inform the public engagement and consultation approach of the regulators (build trust)
- Identify approaches how share complex technical information
- Develop and pilot materials which are accessible to the public (info-graphics)
- Identify public engagement process options (groups, random)



Public Dialogue Workshops

- Three Public Dialogue Workshops:
 1. 17th January 2015, Cheltenham (England)
 2. 31st January 2015, Bangor (Wales)
 3. 21st March 2015, Crewe (England, between two previous workshop sites)
 - *Crewe workshop brought participants from Cheltenham and Bangor workshops together*





Public Dialogue Workshops

- Regulators' questions to public:
 - *How want to be involved in Generic Design Assessment process?*
 - *What do you need to know (what are your concerns/interests?) and how can the nuclear regulators address your concerns/interests as part of the GDA process?*
 - *What can the regulators do to help improve people's trust in them and confidence in their decisions?*



Preliminary Findings and Observations

- **'The public' is not one single entity**; there is great diversity among even small groups of residents, in knowledge, interest, support and trust
- Significant number of the publics' concerns are social in nature and relate to the **potential social impacts of proposed developments**
- Dearth of knowledge of nuclear technology and nuclear-related issues among publics who have lived in **'nuclear communities'** for many years (e.g. Wylfa Power Station in Anglesey built in 1971)
- Many want information to be made more **'relatable', familiar and relevant** to them (e.g. using real life examples, language they can understand), and enjoyed and valued the opportunity to learn more about and discuss the issues covered.



Specific - Priorities in Anglesey (GDA)

- Nuclear (Horizon Nuclear Power)
 - Jobs for local people; number, types, timing
 - Housing for incoming workers
 - Impact of incoming workers on Welsh language and community life
 - Increased traffic; particularly larger vehicles, impact upon bridge traffic (Menai Bridge, connects Anglesey to mainland Wales)
 - Impacts on tourism and health
- Electricity Transmission (National Grid)
 - National Grid propose a predominantly over-ground transmission corridor; much of the public want predominantly underground and sub-sea cabling
 - Impacts on landscape, tourism and health

HORIZON
NUCLEAR POWER



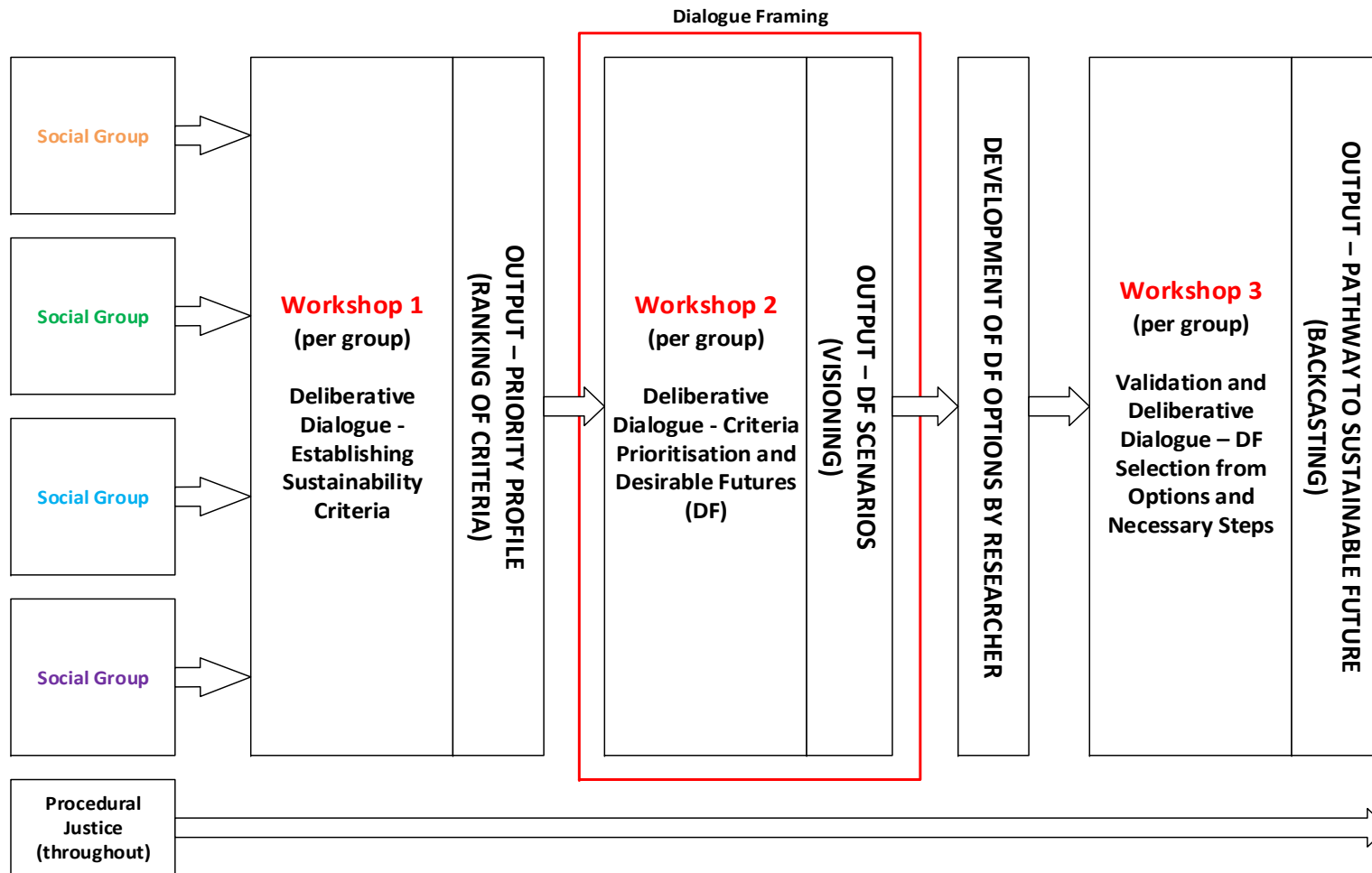
nationalgrid





Current Research

- Identify social priorities for social sustainability. Based on dialogue with social groups, leading to visualising 'sustainable futures' (see Whitton et al., (2015))





GDA learning for Social Sustainability

- Elements of community-based approach: demand from participants and regulators for community-based process
 - Identifying key public concerns and priorities
 - Identifying what the public need to engage effectively
 - Identifying barriers to and key criteria for trust (GDA objective being increasing trust in regulators)



Limitations of existing engagement

- Remain predominantly top-down, expert-led; very few are seen to be evolving towards the middle ground
- Insufficient time, investment and interest towards identifying community concerns and priorities; likely localised conflict
- Insufficient time and investment to identify how priorities differ among the community (i.e. between community groups); there is no single 'public', even the 'local public'
- There remains little opportunity for local people to be genuinely involved in and influence energy decision-making beyond comment and 'consultation'



Future Work

- The role of the community in energy decision-making
- Identifying key areas of conflict between national energy policy and priorities of 'energy communities'
- Which energy developments are communities able to influence, and become involved in decision-making process and to what degree; are some technologies and processes more 'inclusive', 'democratic' and 'socially sustainable' than others?



Thank you for your attention