

(Preliminary) Title:

Case study proposal: Public procurement for sustainable offshore wind development

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1. Introduction

Infrastructure projects represent major investment and construction initiatives with attendant environmental, economic, and societal impacts across multiple scales (Morrisey et al., 2012). The development path chosen can significantly influence the success and sustainability of renewable energy development projects as a vital component of the green energy transition. The regulatory framework for the development of large-scale renewable energy projects is crucial to reduce risks to developers and investors, and a major implication for an accelerated deployment of renewable energy is the allocation process. Often, it can either follow a developer-led approach (also known as an “open-door” procedure) or a government-led process.

As offshore wind (OSW) energy is likely to play a major role in future energy systems, our focus will be on offshore wind energy development hereafter. In a developer-led approach, the project developer takes the initiative to build an offshore wind farm (OWF) in a specific area by submitting an unsolicited application for a license to carry out preliminary investigations. In a government-led process, tenders or auctions are announced for the development of a determined capacity. The distinction between an auction and a tender is that in the latter format factors other than pure price are taken into account by the Government in awarding the contract (Toke, 2015). For instance, a push toward qualitative multicriteria such as sustainability attributes in the tendering requirements has been observed in several countries in recent times.

Government-led approaches have gained popularity over developer-led procedures in Europe. For example, auctions provide many advantages such as real price discovery from its competitive processes, transparency in commitments as agreements are signed by two institutions where liabilities are clearly stated, and greater certainty for investors and policymakers as the prices and quantities are determined before construction (IRENA, 2015). Nevertheless, high transactional costs for participation in the auctions may discourage small developers from participating in the auctions. High competition can lead to underbidding which results in low financial returns, contract failure, or attempted post-auction price raises by successful bidders. If there is not enough competition offers might be too high (Passey, Watt, & Woldring, 2014).

Conversely, the use of auctions or tenders can be seen as a tool to control costs rather than developing larger volumes of capacity that may, for example, be relevant to the rapid adoption of systems for obtaining 100 per cent of energy from renewable energy (Jager, 2008). Hence, government-led approaches could hinder the plans for an accelerated scale-up of offshore wind energy. Moreover, some papers have shown negative effects of auctions on local industry creation (Butler and Neuhoff, 2008; Matsuo and Schmidt, 2019; del Rio).

Nonetheless, there is a lack of empirical knowledge about offshore wind auctions and tenders. Moreover, the sustainability outcomes of auctions and tenders are contingent upon the choice of design elements, but this also remains an unexplored topic. Hence, we propose a multiple case study of the public procurement schemes for sustainable offshore wind development.

2. Research question

The main question guiding the case study is:

How are the public procurement schemes for offshore wind energy development increasing sustainability and social value to deliver economic, social, and environmental outcomes?

3. Research Design

The research is primarily based on a qualitative research approach. A common distinguishing feature of qualitative research is that studies often aim to explore and understand, rather than measure phenomena and behaviors (Green & Thorogood, 2004). We propose a multiple case study for gaining concrete, contextual, in-depth knowledge about a specific real-world subject. In a multiple-case study design, the researcher studies two or more cases (Yin, 2018). Multiple case studies seek evidence in different contexts and do not necessarily require direct comparisons (Stake, 2003). Rather, there is a search for patterns of convergence and divergence that permeate all the cases, as the same issues are explored in every case. The multiple case study design is particularly relevant for providing a larger picture of a complex phenomenon (Stake, 2006).

Our theoretical sampling strategy was based on choosing two types of government-led approaches in developing offshore wind energy: tenders and auctions (figure 1).

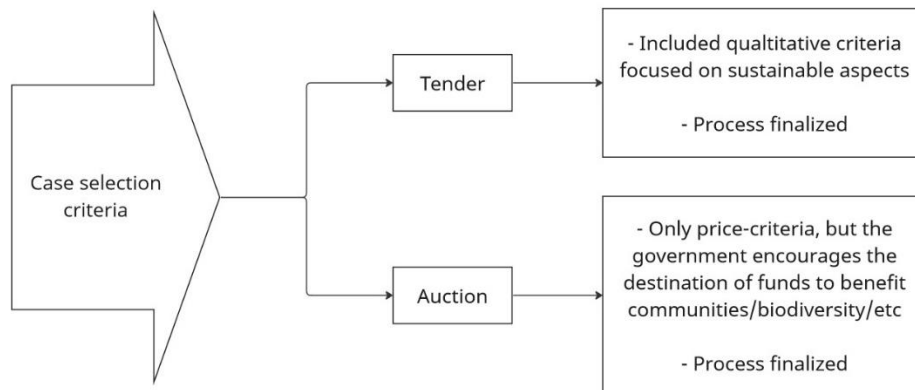


Figure 1: Case selection process. Source: the author.

The selected cases serve to illustrate contrasting perspectives regarding sustainable consenting for accelerated offshore wind development (figure 2).

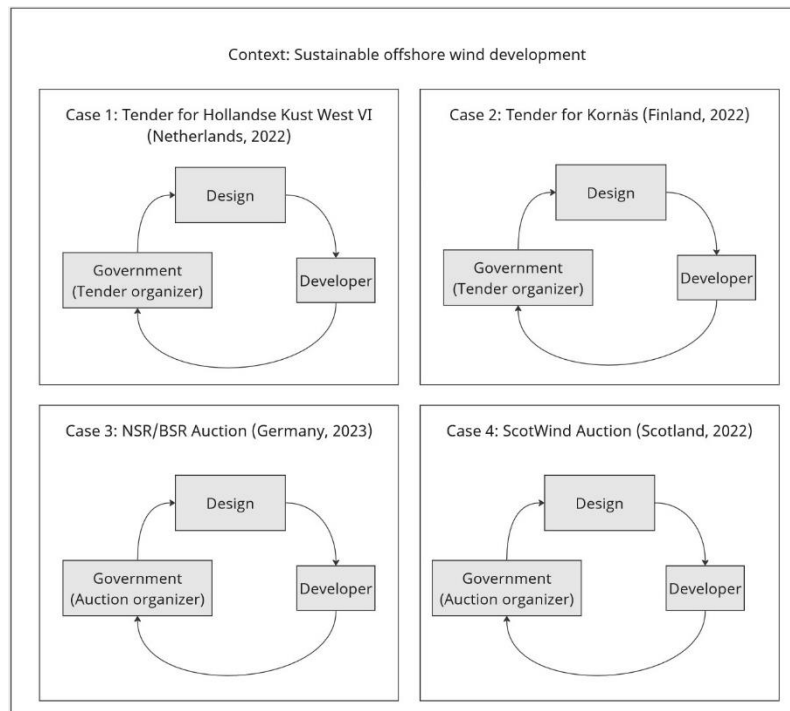


Figure 2: Cases selected for the case study. Source: the author.

4. Methods and materials

Two main sources of data will be utilized in the research: interviews with a variety of informants and the use of documents (official documents of auctions, tenders, and regulatory information). The interviews will be semi-structured, aimed at exploring stakeholders' perspectives on the subject, and will be conducted throughout the year 2024. Interviewees will be managers in local firms of offshore wind development and representatives of the government (or regulatory experts). A preliminary interview guide, including a list of themes and questions, will be prepared before the interviews.

The analysis will be divided into two stages: within-case analysis and cross-case analysis. In both analyses, we will carry out document analysis and interviews will be transcribed to discover and label variables. The software Nvivo will be used for coding the interview transcriptions, as well as the case study database.

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