

Design notifications

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1. Background

The Offshore Infrastructure Regulator (OIR) is provided with functions and powers under the *Offshore Electricity Infrastructure Act 2021* (OEI Act). The OIR is responsible for regulating work health and safety, **infrastructure integrity**¹ and environmental management for **offshore infrastructure activities**² in the **Commonwealth offshore area**³.

2. Purpose

The purpose of this document is to provide general information on the Offshore Electricity Infrastructure Regulations 2022 (OEI Regulations), Division 7, Design Notifications.

3. Scope

This document provides guidance on the following specific requirements of the design notification process:

- when a design notification must be given to the OIR
- how to give a design notification to the OIR
- contents of a design notification
- the process and timelines for OIR review of a design notification
- what to do with OIR feedback on a design notification.

4. Disclaimer

This document is not a legal instrument and does not override or amend the requirements of the OEI Act or OEI Regulations in any way. It is provided to inform stakeholders and does not limit the discretion of the OIR to take any action it considers appropriate under relevant legislation. It reflects the current position of the OIR, which may change from time to time. All changes will be notified publicly.

5. Relevant legislation

The following Commonwealth legislation is relevant to the preparation of a design notification:

- *Offshore Electricity Infrastructure Act 2021* (OEI Act)
- Offshore Electricity Infrastructure Regulations 2022 (OEI Regulations)
- *Work Health and Safety Act 2011* (WHS Act) as applied under the OEI Act
- Work Health and Safety Regulations 2011 (WHS Regulations) as applied under the OEI Regulations

¹ See section 8 of the OEI Act

² Ibid

³ Ibid

- *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act)
- Environment Protection and Biodiversity Conservation Regulations 2000 (EPBC Regulations).

This document does not cover requirements beyond the scope of the legislation listed above. The reader should be aware of and comply with all other Commonwealth, State and Territory legislative requirements that may apply to their activities.

6. Design notification

The purpose of the design notification scheme under the OEI framework is to help ensure that aspects of **licence infrastructure**⁴ design which are critical to the management of safety, infrastructure integrity and environmental management are considered early in the design process.

The design notification should demonstrate that the design of the infrastructure will incorporate measures to:

- eliminate or reduce risks to the health and safety of workers so far as is reasonably practicable during construction, operation, maintenance, decommissioning and removal
- reflect the specific environmental conditions into which the infrastructure is proposed to be placed and provide the necessary environmental protections
- ensure the integrity of the infrastructure across the entire project life, from construction to removal.

As illustrated in **Figure 1**, the effect of early identification and mitigation of risks during the planning and early design stages are easier to incorporate and will often have a lower cost impact when undertaken early.

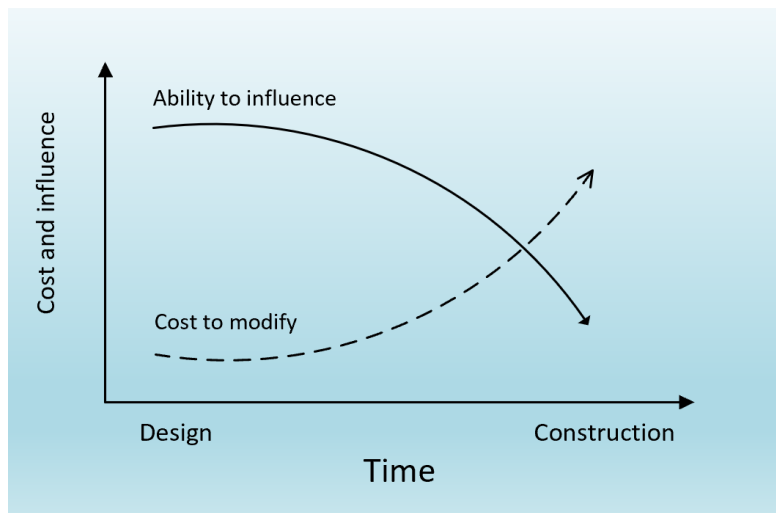


Figure 1– Effect of early identification and mitigation of risks

⁴ See section 8 of the OEI Act

6.1. When to give a design notification to the OIR

The requirements for when a design notification document must be submitted to the OIR for review are specified in Regulation 96 *Requirements to give design notifications* of the OEI Regulations.

Regulation 96 Requirements to give design notifications

(1) For the purposes of paragraph 114(2)(d) of the Act, this section provides for requirements for licence holders to give the Regulator notifications (design notifications), in accordance with section 98 of this instrument, in relation to the design of licence infrastructure.

There are some differences between the licence types as to when a design notification must be given to the OIR.

Regulation 96 Requirements to give design notifications

Proposed commercial licence

(2) A licence holder that proposes to make an initial plan approval application for the Regulator to approve a plan as the management plan for a proposed commercial licence:

- (a) must, before making the application, give the Regulator a design notification in relation to the design of licence infrastructure for the proposed commercial licence; and*
- (b) must not make the application until the Regulator has given feedback on the design.*

For a proposed commercial licence, the design notification must be given to the OIR before the application for an initial management plan approval. The management plan application for a proposed commercial licence can only be made after the OIR has given feedback on the design notification.

Regulation 96 Requirements to give design notifications

Transmission and infrastructure licences

(3) If:

(a) the holder of a transmission and infrastructure licence proposes to make an initial plan approval application or a plan revision approval application in relation to the licence; and

(b) if the application were granted, the management plan for the licence would authorise the licence holder to carry out an offshore infrastructure project for a purpose mentioned in paragraph 58(b) of the Act (storing, transmitting or conveying electricity or a renewable energy product); and

(c) in the case of a plan revision approval application—the existing management plan for the licence does not authorise the licence holder to carry out an offshore infrastructure project for such a purpose;

the licence holder:

(d) must, before making the application, give the Regulator a design notification in relation to the design of licence infrastructure for the licence (other than licence infrastructure that is only to be used for the purpose mentioned in paragraph 58(a) of the Act (assessing feasibility)); and

(e) must not make the application until the Regulator has given feedback on the design notification under section 99.

In the case of a transmission and infrastructure licence, a management plan may be approved without a design notification if the scope of the activities to be covered by the management plan is limited to feasibility activities to gather the information necessary for designing the transmission infrastructure. However, a licence holder must give a design notification to the OIR and receive feedback on the design notification before applying for approval of a management plan to allow the actual construction and operation of licence infrastructure.

Under Regulation 97, a design notification can also be voluntarily submitted by a feasibility or research and demonstration licence holder if they would like to obtain feedback from the OIR. The intent of the design notification process is to allow the licence holder to receive OIR feedback at the preliminary stages of project design, prior to the detailed engineering phase for the infrastructure project so licence holders should seek early engagement with the OIR in all cases.

6.2. How to give a design notification to the OIR

The submission of a design notification to the OIR for review should be done via the online submission portal on the OIR website. The submission should be accompanied by a completed Design Notification application form (N-04402-FM2181) available from the OIR website.

Good editorial practice is essential for an efficient design notification review process. The information provided should be consistent throughout and subject to thorough internal review prior to being given to the OIR. The design notification should include a clear system for cross-referencing information across all parts of the submission. References to separate documents or sources of information should include the publisher or author, document identifiers, date, and revision or edition numbers.

6.3. Request for further information about design notifications

If at any time while considering the design notification the OIR is not satisfied the design notification contains sufficient information, the OIR may request further information from the licence holder.

A request from the OIR for further information about a design notification submission must be in writing. The request must specify the information that is required, when the information is required to be provided by, and the manner in which the information must be provided. The regulations provide the OIR with the ability to make repeated requests for further information if licence holder responses do not satisfy the request. However, the OIR will encourage and seek direct engagement with the licence holder to ensure that any request is clearly understood so that repeated requests are avoided where possible.

6.4. Feedback on design notifications

The OIR will consider the design notification and endeavour to give feedback to the licence holder on the design notification within 60 days. If there has been a request by the OIR for further information about the design notification, the period for providing feedback will be extended by 30 days in addition to the time taken by the licence holder to respond to the request.

It is important to note that the OIR does not approve or refuse to approve the design notification. The OIR instead provides feedback to the licence holder on the design notification in the form of a regulatory advice statement. As described in section 6.1 of this guideline, a licence holder cannot make certain applications until they have received feedback from the OIR on their design notification.

The licence holder should consider the OIR's feedback throughout the subsequent design stages of the project. The licence holder must describe in the management plan how they have addressed the feedback on the design notification contained in the regulatory advice statement. If the way the project is being carried out is not broadly consistent with what was described in the design notification, the management plan must contain a description of how and why the project has changed.

A licence holder may develop an offshore infrastructure project across multiple licences or licence types. In this circumstance the licence holder may wish to submit a single design notification to cover multiple management plans and licences.

6.5. Contents of a design notification

The design notification document submitted to the OIR for review must contain certain details of the proposed licence infrastructure and the design process specified in Regulation 98 *Contents, manner and form of design notification* of the OEI Regulations.

Regulation 98 Contents, manner and form of design notification

(1) A design notification must:

(a) include a plan of the intended location, or locations, and layout of the licence infrastructure; and

(b) include descriptions of the following:

(i) the seabed and subsoil at the intended location or locations of the licence infrastructure;

(ii) the reasonably foreseeable meteorological and oceanographic conditions to which the licence infrastructure may be subject;

(iii) how the licence infrastructure will be constructed;

(iv) how the licence infrastructure will be operated and maintained;

(v) how the licence infrastructure will be decommissioned and removed;

(vi) any significant risks or hazards that may arise from the location or locations, design, construction, operation, maintenance, decommissioning or removal of the licence infrastructure;

(vii) proposed measures to deal with those risks and hazards; and

(c) explain the process used to select the design of the licence infrastructure, including by:

(i) outlining the criteria, design philosophy and standards (if any) that were used to guide the process; and

(ii) outlining how design considerations influenced decisions made in relation to any of the matters in paragraph (a) or (b); and

(iii) summarising any other design options that were considered, and the reasons why they were rejected.

When addressing the requirements of the design notification scheme, the licence holder should ensure consistency between details in the design notification and those provided in environmental assessment and approvals documentation. The design notification should be compatible with any existing EPBC Act obligations that have been established as conditions of an environmental approval granted prior to submission of a design notification. A design notification can also be given to the OIR while an EPBC assessment is still underway. In this case, any design options described in the EPBC process should also be described in the design notification. The final infrastructure design that is described in a subsequent management plan must be consistent with any EPBC approval.

The level of detail provided in the information to satisfy each content requirement is not prescribed by the regulations. However, the level of detail provided in one section should be such that it is able to provide important context support for other sections. In particular, where the licence holder describes a significant hazard or risk, other parts of the design notification should include enough detail to clearly illustrate the source of the hazard or risk. The same approach should be applied to proposed control measures. If a design feature is identified as a control measure to deal with a significant hazard or risk, then the design notification should describe that control measure in enough detail to understand what it is and how effective it will be.

It is likely that some aspects of the infrastructure design will not be finalised at the time of giving the design notification to the OIR. In this case, the design notification should describe the concepts that are under

consideration and the process that will be applied to analysing and selecting the final design. The project design envelope should also be described, including parameters and key assumptions.

6.5.1. Layout and location

The design notification submitted for review to the OIR **must** include a plan of the licence area showing the intended locations and layout of the licence infrastructure. The plan should be at a suitable size and scale, with a scale bar, legend, co-ordinates, information captions and labels in legible fonts. Coordinates should be provided in GDA94 geodesic latitude-longitude.

The design notification should also include a description of the proposed infrastructure to be installed in the licence area, including a list of relevant structures, equipment, and property such as:

- foundations
- anchor arrangements
- offshore substations
- wind turbine generators
- inter-array cables
- export cables
- control rooms and remote controls.

6.5.2. Seabed and subsoil conditions

The design notification **must** describe the seabed and subsoil conditions at the intended locations of the licence infrastructure.

The description should include as a minimum the following:

- bathymetry
- details and the location(s) of any sampling sites within the licence area
- a detailed description of the ground conditions
- a detailed description of any geohazards (e.g. seismic activity, slope instability, variable soil conditions, sediment mobility etc.)
- the suitability of the ground conditions intended for licence infrastructure and activities
- the location of any geotechnical sampling sites within the licence area
- the location of known site constraints (e.g. existing infrastructure, underwater cultural heritage, navigation channels, environmentally sensitive areas, unsuitable ground conditions etc.).

6.5.3. Metocean conditions

The design notification **must** describe the meteorological and oceanographic conditions to which the licence infrastructure may foreseeably be subject.

The description should include as a minimum the following:

- the location of any meteorological and oceanographic monitoring sites (both past and current) within the licence area
- the type of equipment used to determine the metocean conditions
- the duration of the campaign and why it was sufficient to adequately characterise the metocean conditions
- details of wind profile, ocean wave heights and direction, oceanic current profiles, meteorological data, and water level
- how the results from the metocean campaign have been analysed and how the results compare to initial desktop modelling
- how future changes to water level, ambient temperatures, frequency and severity of extreme weather events have been accounted for in the design
- tabular and graphical representations of data where possible.

6.5.4. Construction methodology

The design notification **must** describe how the planned licence infrastructure will be constructed.

The description should sufficiently detail the primary construction methods and equipment for the licence infrastructure and include as a minimum the following components:

- power generation plant including the associated foundations, moorings and anchors
- electricity gathering infrastructure (inter-array cables, substations etc.)
- electricity transmission infrastructure (export cables, substations etc.)
- cable installation, burial, protection and/or stabilisation
- the types of vessels and equipment required
- the safe construction of the licence infrastructure (lifting, towing, drilling, component assembly etc.)
- the safe construction of infrastructure in terms of methods, sea state and wind speed.

6.5.5. Operation and maintenance

The design notification **must** describe the operation and maintenance strategy of the planned licence infrastructure.

The description should include the following:

- the planned operational life of the licence infrastructure
- the planned monitoring of the licence infrastructure (e.g. condition monitoring or infrastructure integrity monitoring systems)
- the maintenance management system for the licence infrastructure with details of the type and frequency of scheduled activities as well as descriptions of possible unscheduled activities
- whether these activities can be completed on site or if they require the licence infrastructure to be moved outside of the licence area

- the types of vessels and equipment required for scheduled and unscheduled activities
- other methods of transport such as helicopter operations
- the safe access of infrastructure in terms of methods, sea state and wind speed
- fire protection systems
- navigation and aviation aids
- corrosion protection systems.

6.5.6. Decommissioning and removal

The design notification **must** describe how the licence infrastructure will be decommissioned and removed at the end of its operational life.

The full decommissioning and removal of all licence infrastructure should be assumed as minimum requirement in all cases. Any consideration of re-purposing the licence infrastructure after the operational design life that does not involve full removal of all equipment and property should be considered in addition to, not instead of, the full removal case.

The description should include as a minimum the following:

- how all licence infrastructure (lifting, loading, towing, etc.) will be decommissioned and removed from the licence area safely
- the design elements of the licence infrastructure required to support the intended decommissioning and removal methodology
- design features which will control degradation factors, such as corrosion, so that decommissioning and removal can be completed safely and efficiently at the end of operational life of the licence infrastructure
- design features which support any consideration for potential re-purposing of licence infrastructure.

6.5.7. Significant hazards, risks, and proposed control measures

The design notification **must** describe any significant risks or hazards that may arise from the locations, design, construction, operation, maintenance, decommissioning or removal of the licence infrastructure. The design notification **must** also describe the proposed control measures to deal with those hazards and risks.

The design notification should, as a minimum, describe significant hazards and risks to the health and safety of workers, impacts to the environment, and infrastructure integrity associated with the following:

- construction, operation, maintenance, decommissioning or removal of the licence infrastructure
- the local environment
- the location of the licence area and co-existence with other marine users
- metocean conditions within the licence area
- seabed hazards (both naturally occurring and introduced) within the licence area

- access for the workforce and other marine users in normal, contingency, and emergency operating conditions during all phases of the offshore infrastructure project.

When considering control measures, the licence holder should remember that their obligations under the applied work health and safety provisions are to first eliminate risks to health and safety so far as is reasonably practicable. If it is not reasonably practicable to eliminate the risks to health and safety, then the risks should be minimised so far as is reasonably practicable through prevention or mitigation measures.

The design notification regulations do not include a requirement for a description of the licence holder's risk management process. However, some description of the licence holder's risk management process may be relevant, such as the process and criteria for determining whether or not a control measure is reasonably practicable.

6.5.8. Design selection process

The design notification **must** explain the process used to select the design of the licence infrastructure. This explanation must include

- a description of the criteria, design philosophy, and standards that were used during the design process
- an outline of how these design considerations influenced the decisions that were made about the matters covered under Regulation 98(2)(a) and (b)
- a summary of any other design options that were considered and why they were rejected.

The explanation of the design process should include descriptions of the following:

- how the options for site and infrastructure layout have been selected
- the project design envelope including parameters, methodologies, and assumptions
- the details of the processes for concept selection and design options analysis
- design assurance processes including technical review, quality assurance, and peer review
- processes for detailed engineering after final design selection
- the process of selecting suppliers of major infrastructure components and installation contractors
- the industry standards have been applied to the design and arrangements for third party verification, certification, and conformity assessment of project compliance to selected standards
- the technologies considered for the licence infrastructure, including reasons for rejection of certain technologies and the readiness level of any new or emerging technology
- process for finalising unresolved design activities relating to the health and safety of workers, environmental considerations, and infrastructure integrity
- how environmental protections, including any conditions attached to the licence under the EPBC Act, have been considered
- how the layout and design of infrastructure will facilitate multiple uses of the marine area and be compatible with existing and reasonably foreseeable activities so far as is reasonably practicable.

7. Monitoring

This guideline is to be reviewed periodically by the OIR. Further reviews will be undertaken as a result of changes to legislation, through feedback elicitation or as a result of accumulated experience.

8. Related documents

N-04401-PL2048 - Assessment - OIR

N-04403-GL2084 - Management plan content – OIR

N-04402-FM2181 - Design Notification Application - OIR