

# SCHEDULE OF FEES AND CHARGES FOR GENERATOR CONNECTIONS

PREPARED BY: Network Development

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## Important Notice

### **Purpose**

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## 1 Introduction

This document provides estimates of AEMO's fees and charges for its activities in respect of generator connections in the NEM (National Electricity Market). The estimates represent a standard connection with typical commercial terms.

AEMO's costs are determined by a range of factors including:

- the location of the connection point and complexity of the connection proposed
- whether the connection is to the transmission or distribution system
- the size of the generation project
- whether it is a new connection or for alteration of an existing generating system.
- the type of connection (i.e. contestable, non-contestable)
- the extent of commercial negotiation required
- the extent of legal drafting required

For generator connections in the NEM outside Victoria and for generator connections to the distribution system within Victoria, AEMO's role as power system and market operator is limited to the assessment of access standards termed AEMO advisory matters and the commissioning and review of R2 test data.

For generator connections to the transmission system within Victoria, AEMO also provides shared transmission services to network users. These additional functions are reflected in AEMO's costs for these connections.

## 2 Important Notes

Connection applicants should note that the following assumptions are made when providing the indicative cost estimates:

- Cost estimates represent AEMO's fees and charges only. Connection applicants should also liaise with the relevant declared transmission system operator (DTSO) in relation to their costs for new connections to the Declared Shared Network (DSN) in Victoria, and with the connecting network service provider (NSP) for all other connections.
- The cost estimates are indicative only and actual costs may be higher or lower than indicated depending on the complexity of the project and the quality of information provided by the connection applicant. These estimates assume that:
  - the connection applicant provides AEMO with technical data and simulation models that meet AEMO's model guideline requirements at the start of any and all works;
  - the simulation models are provided in PSS/E format. Models provided in other formats are required to be converted to PSS/E format for assessment, requiring additional time and incurring additional cost.
  - there will only be two rounds of review by AEMO in relation to all initial technical data provided by the applicant.
  - once the review is completed no further changes are made by the applicant to either the data, models or parameters after AEMO's work has commenced;
  - for due diligence assessments,(i.e. generator connections in the NEM outside Victoria, and generator connections to the distribution system in Victoria) the connecting NSP has already performed a robust review of the connection application data received, and has undertaken analysis of all performance standards prior to releasing them to AEMO; and

- during commissioning or post-commissioning, the generating system performs as originally negotiated, and there is no need to change control system settings or renegotiate agreed performance standards.
- Estimates assume AEMO's internal resources are used. Where internal resources are not available and external resources must be engaged to assist with processing an application, AEMO will discuss this with the applicant first. The applicant can then choose either to pay for the cost of external resources, which will be passed through by AEMO, or elect to delay the application until internal resources are available.
- Extra costs may be incurred if applicants wish to negotiate non-standard commercial terms and conditions and/or raise issues that require the use of external lawyers and additional time for AEMO's staff. AEMO will discuss this with the applicant. The applicant can then choose either to accept the standard terms and conditions or pay for the cost of additional resources and accept that potential delays may be incurred through this approach.
- Work is undertaken in normal working hours only. Extra costs will be incurred for work carried out outside these hours, either overnight or during weekends and public holidays.
- Estimates do not include:
  - registration fees
  - provision for site visits (AEMO has the right to witness commissioning tests and, where site visits are required, the applicant will be required to pay AEMO for staff time and out-of-pocket expenses such as travel and accommodation).
- Fees and hourly rates will be reviewed from time to time.

### 3 Due Diligence Activities

***These fees and charges apply to all new generator connections in the NEM outside Victoria and for generation connections to the distribution system in Victoria.***

AEMO undertakes only due diligence activities for new generator connections in the NEM outside Victoria and for generator connections to the distribution system in Victoria. Connection applicants should also liaise with the relevant DTSO in relation to their costs for new connections to the DSN in Victoria, and with the connecting NSP for all other connections.

Table 3-1 provides a breakdown of indicative costs for due diligence activities, by nameplate capacity of the new generating system (5-30 MW and greater than 30 MW). Note that for non-DSN connections, a lower level of technical assessment is required.

Project Phase	Detail	>5MW & <30MW	≥30MW
Connection Application	Application data review & response	2,000 - 4,000	10,000 - 18,000
	Assessment of Proposed Performance Standards	17,000 - 31,000	38,000 - 70,000
	Connection Application Process Management	3,000 - 6,000	6,000 - 10,000
Commissioning & R2 Testing	Commissioning Planning & Coordination	2,000 - 3,000	5,000 - 8,000
	Review & Approve Commissioning Results	2,000 - 4,000	6,000 - 10,000
	Review & Approve Commissioning Report	1,000 - 2,000	5,000 - 8,000
	Review & Approve 'R2' Testing Report	-	5,000 - 8,000
<b>Estimated AEMO Cost Range</b>		<b>\$27,000 - \$50,000</b>	<b>\$75,000 - \$132,000</b>

Table 3-1: AEMO's indicative costs by nameplate capacity

## 4 New Generator Transmission Connections in Victoria

*These fees and charges apply to all new generator transmission connections in Victoria.*

Table 4-1 provides a breakdown of costs as estimated ranges for typical 'small' and 'large' projects. A small project is one that is greater than 30MW and does not require augmentation to the DSN. A large project is one that is greater than 30MW and requires an augmentation to the DSN to enable connection. This augmentation would consist of contestable (e.g. a new terminal station) works and/or non-contestable (i.e. interface and other minor and non-separable) works.

Project Phase	Detail	Small Project	Large Project
Connection Application	Application data review & response	6,000 - 10,000	12,000 - 23,000
	Assessment of Proposed Performance Standards	35,000 - 66,000	56,000 - 104,000
	Primary & Secondary Functional Specification	8,000 - 15,000	19,000 - 35,000
	Develop AEMO Operational Planning Advice	5,000 - 8,000	10,000 - 19,000
	Connection Application Process Management	5,000 - 8,000	8,000 - 15,000
Procurement & Commercial	Procurement of Services, Negotiation and Finalisation of Contracts	6,000 – 10,000	140,000 – 260,000 <sup>1</sup>
Commissioning & R2 Testing	Commissioning Planning & Coordination	6,000 - 10,000	8,000 - 15,000
	Review & Approve Commissioning Results	6,000 - 10,000	8,000 - 16,000
	Review & Approve Commissioning Report	5,000 - 8,000	6,000 - 10,000
	Review & Approve 'R2' Testing Report	5,000 - 8,000	6,000 - 10,000
	Commercial & Legal Support (e.g. Practical Completion)	-	5,000 - 8,000
<b>Estimated AEMO Cost Range</b>		<b>\$87,000 - \$153,000</b>	<b>\$278,000 - \$515,000</b>
Note 1: These fees do not include any external legal costs			

Table 4-1: AEMO's indicative costs by size of project



## 5 Altered Generating Systems

***These fees and charges apply to all alterations to connected generating systems in the NEM, including Victoria.***

Table 5-1 provides a breakdown of costs as estimated ranges. Please note, the scope of works for an altered generating system can range from relatively minor modifications of secondary works to extensive upgrades of plant controls. This therefore creates a wide range for the estimated costs.

Project Phase	Detail	>5MW & <30MW	≥30MW
Assessment	Application/Notification data review & response	2,000 – 4,000	10,000 - 18,000
	Assessment of Proposed Performance Standards	1,000 - 31,000	4,000 - 70,000
	Alteration Process Management	3,000 - 6,000	6,000 - 10,000
Commissioning & R2 Testing	Commissioning Planning & Coordination	2,000 - 3,000	5,000 - 8,000
	Review & Approve Commissioning Results	2,000 - 4,000	6,000 - 10,000
	Review & Approve Commissioning Report	1,000 - 2,000	5,000 - 8,000
	Review & Approve 'R2' Testing Report	-	5,000 - 8,000
<b>Estimated AEMO Cost Range</b>		<b>\$11,000 - \$50,000</b>	<b>\$41,000 - \$132,000</b>
Please Note commercial costs are not provided as they depend on the type of alteration and are for VIC only			

Table 5-1: AEMO's indicative costs for an altered generating system

## 6 AEMO's Schedule of Rates

Table 6-1 sets out AEMO's hourly rates for different types of staff involved in processing an application. These rates exclude GST and take effect from September 2017.

Staff Grade	Hourly Rate
Project Management, Commercial, Legal and Experienced Engineering Resources	\$210
Engineers and Analysts	\$150

Table 6-1: AEMO's hourly rates