

# Jemena Electricity Networks (Vic) Ltd

JEN – RIN – Support – Major Customers – Forecast Methodology – 20250131

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# **Glossary**

Customer Block Load	A load change advised by a major customer that is moderated by Jemena and included as an adjustment to JEN's underlying maximum demand forecasts.
Jemena Electricity Networks (JEN)	One of five licensed electricity distribution networks in Victoria, the JEN is 100% owned by Jemena and services over 360,000 customers via an 11,000 kilometre distribution system covering north-west greater Melbourne.
Initial Load	The forecast customer block load as advised by the customer on day 1.
Limitation	Refers to a limitation on a network asset's ability to transfer power due to its rating, failure rate or condition.
Likelihood	The relative chance that the customer block load will materialise on the network.
Maximum demand (MD)	The highest amount of electrical power delivered (or forecast to be delivered) for a particular season (summer and/or winter) and year.
Moderated Block Load	A block load that has been reduced in magnitude (load scale) and delayed in time (load delay) according to a likelihood of a block load materialising and according to a demand growth scenario.
Network	Refers to the physical assets required to transfer electrical energy to customers.
Network Block Load	An aggregation of Customer Block Loads that are applicable to a particular network asset, and used as an adjustment to that asset's underlying maximum demand forecast.
Reliability	The measure of the duration or frequency of the distribution system to provide uninterrupted supply to customers over a defined time.
Scenario	High, Base and Low maximum demand growth forecasts that are developed to represent different future states of the world.
Ultimate Load	The forecast customer block load as advised by the customer for the last year of Jemena's block load forecasting period.

# **Abbreviations**

AW	Airport West Zone Substation
BD	Broadmeadows Zone Substation
BMS	Broadmeadows South Zone Substation
BTS	Brunswick Terminal Station
BLTS	Brooklyn Terminal Station
C00	Coolaroo Zone Substation
EP	East Preston Zone Substation
EPN	East Preston North Zone Substation
FE	Footscray East Zone Substation
FF	Fairfield Zone Substation
FW	Footscray West Zone Substation
JEN	Jemena Electricity Networks
KTS	Keilor Terminal Station
MAT	Customer Zone Substation
MVA	Mega Volt Ampere
NDT	Customer Zone Substation
NEI	Customer Zone Substation
NEL	Customer Zone Substation
NEM	National Electricity Market
NH	North Heidelberg Zone Substation
NS	North Essendon Zone Substation
NT	Newport Zone Substation
PTN	Preston Zone Substation
PV	Pascoe Vale Zone Substation
SMTS	South Morang Terminal Station
SSS	Customer Zone Substation
ST	Somerton Zone Substation

TH	Tottenham Zone Substation
TMA	Tullamarine Zone Substation
TTS	Thomastown Terminal Station
vco	Customer Zone Substation
WGT	Customer Zone Substation
WMTS	West Melbourne Terminal Station
WT	Watsonia Zone Substation
YVE	Yarraville Zone Substation

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# 1. Introduction

Jemena Electricity Networks (**JEN**) is the licensed electricity distributor for the northwest of Melbourne's greater metropolitan area. The network service area ranges from Gisborne South, Clarkefield and Mickleham in the north, to Williamstown and Footscray in the south, and from Hillside, Sydenham and Brooklyn in the west, to Yallambie and Heidelberg in the east.

Our customers expect us to deliver and maintain a reliable electricity supply at the lowest possible cost. To address emerging network limitations, we must adopt the most prudent and efficient solutions on behalf of our customers, by choosing investment that maximise the present value of net economic benefits to all those who produce, consume and transport electricity in the National Electricity Market (**NEM**). Key to achieving this objective for network capacity limitations associated with growth in maximum demand, is the need to develop robust maximum demand forecasts.

This document describes the method used by Jemena for forecasting block load maximum demands, that are associated with increased demand for distribution services from our prospective and existing major customers. This method forms a component of our overall maximum demand forecasting process, with the objective to capture changes in electricity demand from specifically identified large customers supplied by our sub-transmission 66kV network. This document supports the Major Customer Network Development Strategy (NDS). The NDS presents the current and emerging limitations within the JEN service area over a 10-year planning horizon associated with connecting proposed major customer connections (mostly from data centres) and articulates the need for augmentation and other capital works to address identified network needs.

This document considers likely requirements for planned staging (in timing and maximum demand) of each of the identified major customers' forecast block loads and addresses the uncertainty in both the timing and magnitude of those maximum demand forecasts by considering a range of moderated demand uptake scenarios.

#### Structure of this document

The remainder of this document is structured as follows:

- Chapter 2 details the method used by Jemena for forecasting moderated major customer block loads for inclusion into our network asset maximum demand forecasts;
- Chapter 3 summarises the (de)identified major customer block loads known to-date, the likelihood of those block loads materialising, and the JEN assets with maximum demand forecasts are impacted by those block loads;
- Appendix A details the incremental block load forecast maximum demand requirements of each major customer as advised by the customer, and the moderated forecast maximum demands based on each growth scenario, that have not been included in JEN's underlying forecast maximum demand, using the method described in this document; and
- Appendix B details the block load forecast maximum demand requirements of each major customer as advised by the customer, and the moderated forecast maximum demands based on each growth scenario that has been included in JEN's underlying forecast maximum demand, using the method described in this document; and

- Appendix C details the incremental aggregated block load forecast maximum demand imposed on each affected distribution network asset from the moderated forecast block load customer connections detailed in Appendix A (only), for each growth scenario using the method described in this document.
- Appendix D details the incremental aggregated block load forecast maximum demand imposed on each affected transmission connection asset from the moderated forecast block load customer connections detailed in Appendix A (only), for each growth scenario using the method described in this document.

# 2. Block Load Maximum Demand Forecast Method

Our forecast has three main components:

- Underlying forecast the forecast load at the 66kV sub-transmission level derived from our bottom-up forecast (at the high-voltage feeder level) and moderated by our top-down (Blunomy) forecast.
- Known major customer connections forecast moderated load from known customer connections to our 66 kV sub-transmission level. We produce three separate forecasts (low, base and high) to reflect different moderating assumptions.
- Future major connections forecast the forecast of load from 'future' (currently unknown) customer connections which will occur beyond the horizon of our known connections.

# 2.1 Known major customer connection forecasting process

We forecast demand from known customer connections by moderating the demand of customer provided demand forecasts following the method outlined below.

#### Customer identification and provision of data

- 1. Identify our customers who are forecasting a new or changed need for distribution services from Jemena.
- 2. Each of those customers provide us with annual new or changed (increased or decreased) maximum demand forecast.

# Likelihoods, scenarios and moderated maximum demand

- 3. We assign a likelihood of connection proceeding to each known customer connection. This is based on the status of the customer projects, and their progression through our connection process as follows:
  - 1. **In Flight** The customer has signed a connection agreement with JEN for its block load.
  - 2. **High** Proceeding to connection offer and the customer has procured land.
  - 3. Medium Proceeding to feasibility study and the customer has procured land.
  - 4. Low Enquiry phase only, but the customer has already procured land.
  - 5. **Unlikely** Enquiry phase only, and customer is considering different sites across the state.
- 4. Based on the assigned connection likelihoods, and previous uptake experience with similar customers<sup>1</sup>, we assign a **moderated** maximum demand uptake profile which may:
  - a. Vary (delay) the timing of the customers' initial load uptake;

<sup>&</sup>lt;sup>1</sup> Based on a sample of recent connections, two-thirds of JEN's major customers achieve around 100% of their initial contracted demand with no delay and one-third only reach around 60% of their initial demand. A weighted base scenario for the initial demand would be approximately 90% for an in-flight connection. Furthermore, one-third of JEN's major customers achieve around 100% of their ultimate contracted demand, and one-third only reach around 60% of their ultimate demand. A weighted base scenario for the ultimate demand would be approximately 70% for an in-flight connection.

- b. Vary (delay) the timing of the customers' ultimate load uptake; and
- c. Vary (reduce) the magnitude of the customers' forecast maximum demand.
- 5. We define these moderating uptake profiles for three distinct scenarios, to establish a set of Base, Low and High maximum demand forecasts which can be weighted for the purposes of considering different future state scenarios in the justification of expenditure programs.

#### Effect on network assets

- 6. We identify the most likely (existing) network asset that the block load would likely be connected to, in the absence of a network augmentation.
- 7. We identify for each scenario, the likelihood of connections to JEN network, to moderate the customer block loads (that are not in-flight) which are assigned to each network asset.
- 8. We calculate the network asset block load forecast for each of those network assets (and those network assets affected upstream), using the aggregated block load forecast of each of those connected / connecting customers, using the moderated scenario-based forecast block loads calculated above.
- 9. For customers with new connection projects that have recently been completed and are taking their contracted load, we do not moderate the load uptake forecasts.

#### New Block Load Uptake Scenarios

The moderated maximum demand uptake profile we apply, for each customers' forecast block load likelihood, are defined in Table 2-1 for each uptake scenario.

Table 2-1: Major Customer New Block Load Uptake Scenarios<sup>2</sup>

Scenario	Connection Likelihood	Connection Likelihood (Status)	Initial Load Delay	Ultimate Load Delay	Initial Load Scale	Ultimate Load Scale
	100%	1. In Flight	Delay 2 year	Delay 5 year	60%	60%
		2. High	Delay 3 year	Delay 8 year	40%	40%
Low		3. Medium	Delay 5 year	Delay 10 year	20%	20%
	50%	4. Low	Abandoned	Abandoned	0%	0%
		5. Unlikely	Abandoned	Abandoned	0%	0%
	100%	1. In Flight	Delay 1 year	Delay 3 year	90%	70%
		2. High	Delay 2 year	Delay 5 year	70%	50%
Base		3. Medium	Delay 3 year	Delay 8 year	50%	30%
	70%	4. Low	Delay 5 year	Delay 10 year	30%	10%
		5. Unlikely	Abandoned	Abandoned	0%	0%
	100%	1. In Flight	On time	Delay 2 year	100%	100%
		2. High	Delay 1 year	Delay 3 year	80%	80%
High		3. Medium	Delay 2 year	Delay 5 year	60%	60%
	90%	4. Low	Delay 3 year	Delay 8 year	40%	40%
		5. Unlikely	Delay 5 year	Delay 10 year	20%	20%

Refer to Attachment Major Customer Forecast Model for detailed model.

The modification of the customer uptake profile for its block load is undertaken with the following formula:

```
Moderated Customer Block Load MVA (year) = Connection Likelihood (%) x Min {
    Ultimate Load Scale (%) x Ultimate Customer Block Load MVA,
    Max [
        Ultimate Load Scale (%) x Customer Block Load MVA (year - Ultimate Load Delay Years),
        Moderated Customer Block Load MVA (year - 1),
        IF [ Customer Block Load MVA (year - Initial Load Delay Years) = Ultimate Customer Block Load MVA ]
        THEN Initial Load Scale (%) x Initial Customer Block Load MVA ),
        ELSE Initial Load Scale (%) x Customer Block Load MVA (year - Initial Load Delay Years) ] }
```

Table 2–2 is an example of a customer block load forecast for an *In Flight* project under a *Base Case* scenario.

**Uptake Scenario** Customer forecast n **→** 9 Base Delay 1 year x 90% Delay 1 year x 90%

Table 2-2: Sample block load forecast maximum demand (MVA)

These aggregated moderated customer block load forecasts (by scenario) are added to the underlying load maximum demand forecasts produced by Blunomy for JEN and used for economically evaluate network and non-network solutions.

# 2.2 Future major customer connections

We also forecast load from 'future' (currently unknown) customer connections.

This forecast is based on the average incremental load of known customer load over a 10-year period. We apply this forecast from 2028. We forecast that future load will continue as known connections fall away (given the forecasting horizon of known connections).

We also adjust this forecast based on our general expectation around how these connections will change. For major customers we expect connections to be similar to what has been observed in the past. For data centres, we expect those connections will reduce over the period as the boom in data centre investment moderates.

# 3. Block Load Maximum Demand Forecasts

# 3.1 Underlying demand forecast

Table 3–1 shows the portion of the block load forecast that is already included in JEN's underlying load forecast. No new data centre loads are represented in this forecast.

Table 3-1: Aggregated block load forecast maximum demand (MVA) by scenario (In underlying demand forecast)

Uptake Scenario	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
Customer forecast	40	96	101	107	121	121	121	107	107	107
Base	0	28	55	59	61	69	71	61	63	63
Low	0	0	24	46	48	49	57	48	50	50
High	40	76	85	86	102	107	110	96	96	96

# 3.2 Known major customer connections

Our major customers (prospective and existing connections) have approached us with their plans for new and changed block loads over the next several years. The approximate location of these proposed changes in block load within the JEN supply area are shown in Figure 3-1 using deidentified JEN Project ID numbering.

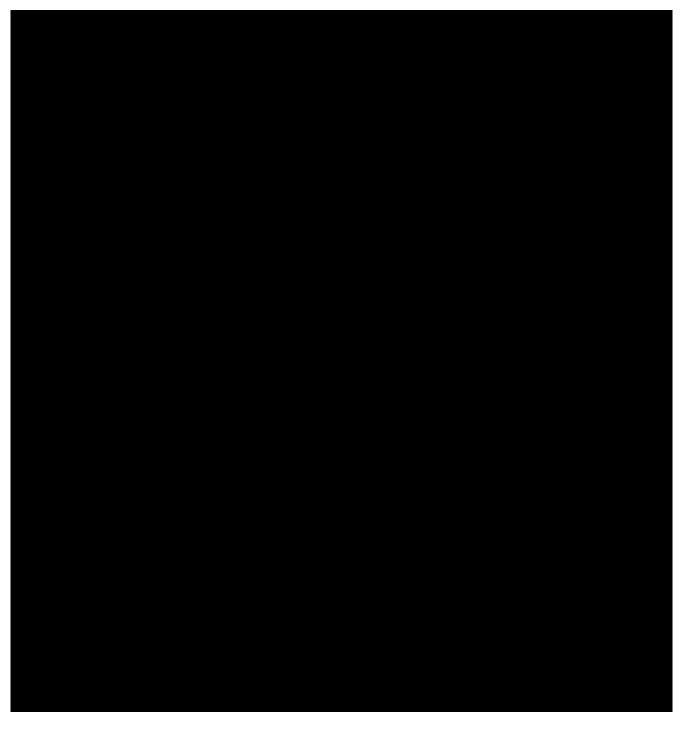


Figure 3-1 Proposed Major Customer Changes in Block Loads within the JEN Supply Area

The forecast annual cumulative changes in maximum demand provided by each of these customers for their block loads, are each summarised under "Customer forecast" in each of the tables provided in Appendix A.

We have assigned a likelihood for each of those block loads based on the method outlined in Section 2 and have identified the network assets where the maximum demand forecasts are affected by the block load in Table 3-2.

Table 3-2: Major Customer New Block Load Likelihoods by JEN Project ID

Block Load	Connection Likelihood (Progress)	Included in JEN's Underlying Load Forecast	JEN Network Assets Impacted by the Customer Forecast Maximum Demand
A154 (5.1)	2. High	Yes	FT 11 kV; WMTS-FT 66 kV
A17 (5.2)	1. In Flight	Yes	FF 6.6 kV; BTS-FF-BTS 22 kV
A197 (4.1)	1. In Flight	No	TTS-NEI-NH-WT-TTS 66 kV
A26 (5.2)	1. In Flight	Yes	FF 6.6 kV; BTS-FF-BTS 22 kV
A50 (5.3)	2. High	Yes	ST 22 kV; SMTS-ST-SSS-SMTS 66 kV
A53 (4.2)	3. Medium 3. Medium	No	a) EPN 22 kV; TTS-PTN-EPN-EP-TTS 66 kV; and b) NH 22 kV; TTS-NEI-NH-WT-TTS 66 kV
A54 (5.4)	4. Low	Yes	TH 22 kV; BLTS-TH-BLTS 66 kV
A60 (4.3)	2. High	Existing load only	MAT 22 kV; KTS-TMA-MAT-KTS 66 kV
A923 (5.5)	1. In Flight	Yes	FW 22 kV; BLTS-FW-BLTS 66 kV
A997 (5.6)	1. In Flight	Yes	FE 22 kV; WMTS-FE/WGT-WMTS 66 kV
TEMPA (5.9)	1. In Flight	Yes	BD 22kV; TTS-BD-BMS-COO-VCO- TTS 66 kV
TEMPB (5.10)	1. In Flight	Yes	AW 22 kV; KTS-AW-PV/NDT-KTS 66 kV
TEMP16 (5.11)	1. In Flight (Stage 1) 4. Low (Stage 2)	Yes No	EPN 22 kV; TTS-PTN-EPN-EP-TTS 66 kV
TEMP5 (5.7)	1. In Flight	Yes	FF 6.6 kV; BTS-FF-BTS 22 kV

Block Load	Connection Likelihood (Progress)	Included in JEN's Underlying Load Forecast	JEN Network Assets Impacted by the Customer Forecast Maximum Demand
DC01 (0)	1. In Flight (Stage 1) 2. High (Stage 2) 5. Unlikely (Stage 3)	Existing load only No No	TMA24 22 kV; KTS-AW-PV/NDT-KTS 66kV KTS-AW-PV/NDT-KTS 66kV KTS-AW-PV/NDT-KTS 66kV
DC02 (4.6)	1. In Flight (Stage 1) 3. Medium (Stage 2)	Existing load only No	TH 11 22 kV BLTS-TH-BLTS 66 kV
DC04 (4.7)	1. In Flight (Stage 1) 4. Low (Stage 2)	No No	KTS-TMA-MAT-KTS 66 kV
DC06 (5.8)	1. In Flight	Yes	N/A
DC07 (0)	1. In Flight (Stage 1) 2. High (Stage 2)	No No	BLTS-TH-BLTS 66 kV BLTS-TH-BLTS 66 kV
DC09 (0)	3. Medium	No	BLTS-TH-BLTS 66 kV
DC10 (4.10)	2. High (Stage 1) 5. Unlikely (Stage 2)	No	KTS-AW-PV/NDT-KTS 66 kV
DC11 (4.11)	1. In Flight	No	SMTS-ST-SSS-SMTS 66 kV
DC12 (0)	1. In Flight (Stage 1) 4. Low (Stage 2)	No	KTS-AW-PV/NDT-KTS 66 kV
DC17 (4.13)	2. High (Stage 1) 4. Low (Stage 2)	No	KTS-SHM-SBY-KTS 66 kV
DC18 (0)	2. High (Stage 1) 3. Medium (Stage 2)	No No	KTS-TMA-MAT-KTS 66 kV KTS-TMA-MAT-KTS 66 kV

Block Load	Connection Likelihood (Progress)	Included in JEN's Underlying Load Forecast	JEN Network Assets Impacted by the Customer Forecast Maximum Demand
DC19 (4.15)	4. Low (Stage 1) 4. Low (Stage 2)	No	KTS-TMA-MAT-KTS 66 kV
DC20 (0)	2. High (Stage 1) 4. Low (Stage 2)	No	SMTS-ST-SSS-SMTS 66 kV
DC21 (0)	4. Low	No	TTS-BD-BMS-COO-VCO-TTS 66 kV
DC22 (4.18)	4. Low	No	SMTS-ST-SSS-SMTS 66 kV
DC24 (4.19)	4. Low	No	TTS-BD-BMS-COO-VCO-TTS 66 kV
DC26 (4.20)	4. Low	No	BLTS-TH-BLTS 66 kV
DC27 (4.21)	4. Low	No	KTS-BY-ES-KTS 66 kV
DC28 (4.22)	4. Low	No	SMTS-ST-SSS-SMTS 66 kV
DC29 (4.23)	4. Low	No	SMTS-ST-SSS-SMTS 66 kV
DC30 (4.24)	4. Low	No	BLTS-TH-BLTS 66 kV
DC32 (4.25)	4. Low	No	BLTS-NT-YVE-BLTS 66 kV

After applying the moderating factors to customer block load forecasts, the forecast annual cumulative changes in maximum demand assessed by Jemena for each of these customers, are each summarised in Appendix A.

Table 3–3 shows the forecast known block load across the JEN supply area, for the known customer connection block loads in aggregate (also split by data centres and other major block loads), relative to 2023 for each scenario.

Table 3-3: Aggregated block load forecast maximum demand (MVA) by scenario (Known customer connections)<sup>3</sup>

Uptake Scenario	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
Customer forecast	47	153	222	278	360	464	623	814	1033	1348
- Data Centres	17	36	83	129	174	267	414	592	801	1104
- Major Loads	30	117	140	149	186	197	208	222	233	244
Base	2	54	115	136	171	205	241	294	342	378
- Data Centres	2	31	58	69	96	121	151	195	238	276
- Major Loads	0	22	58	67	74	84	90	99	104	102
Low	2	21	74	108	126	156	189	216	236	260
- Data Centres	2	21	56	62	76	105	128	154	170	187
- Major Loads	0	0	18	46	50	51	61	63	65	73
High	47	112	159	198	231	275	363	444	508	573
- Data Centres	17	36	68	96	112	144	212	278	340	401
- Major Loads	30	76	91	102	120	131	151	165	167	172

# 3.3 Future major customer connections

Based on the average incremental load from the known customer forecasts over a 10-year period, which reflect the known pipeline of possible major load connections, we also forecast load from 'future' (currently unknown) customer.

As outlined in section 2.2, we adjust this forecast to reflect that we expect major customer connections to hold steady while data centre connections will moderate over time.

Application of this approach is illustrated in Figure 3-2, with the thin lines representing the known customer forecast and the thick lines showing the future customer forecast added to the forecast.

Based on customer information and forecast completed in August 2024.

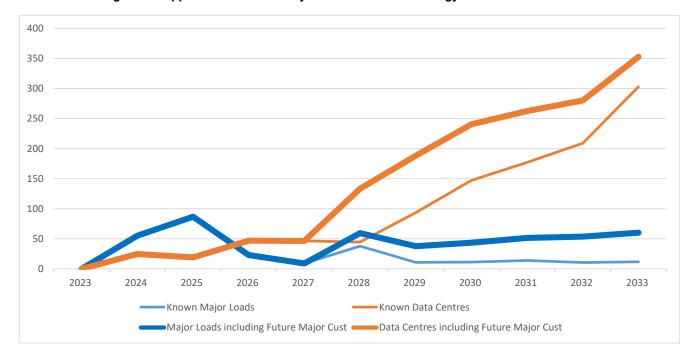


Figure 3-2 Application of future major customers methodology on forecast block loads

Table 3–4 shows the forecast for future major customers block load across the JEN network, for the currently yet received or known customer connection block loads in aggregate.

Table 3-4: Aggregated future forecast maximum demand (MVA) by scenario (Major customers)

Uptake Scenario	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
Customer forecast	0	0	0	0	22	48	81	118	162	210
Base	0	0	0	0	9	21	35	53	72	88
Low	0	0	0	0	6	13	24	34	45	63
High	0	0	0	0	14	32	58	88	116	148

Table 3–5 shows the forecast future major customer data centre block load across the JEN network, for the currently yet received or known customer connection block loads in aggregate.

Table 3-5: Aggregated future forecast maximum demand (MVA) by scenario (Data centres)

Uptake Scenario	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
Customer forecast	0	0	0	0	89	183	277	362	434	484
Base	0	0	0	0	49	83	101	119	129	129
Low	0	0	0	0	39	72	86	94	94	94
High	0	0	0	0	57	99	142	171	184	184

The total future major customer load is the sum of Table 3–4 and Table 3–5.

# 3.4 Known and future demand forecasts

Table 3–6 shows the forecast total block load across the JEN network, for the combined known and future major customer block loads in aggregate that are <u>not</u> included in the JEN's underlying maximum demand forecast, relative to 2023.

Table 3-6: Aggregated block load forecast maximum demand (MVA) by scenario (Total customer connections)<sup>4</sup>

Uptake Scenario	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
Customer forecast	7	56	121	170	349	575	859	1187	1521	1935
- Data Centres	2	21	68	114	248	436	676	939	1219	1573
- Major Loads	5	35	53	56	102	139	183	248	302	362
Base	2	25	61	77	168	239	306	405	481	532
- Data Centres	2	21	47	59	135	193	241	304	357	394
- Major Loads	0	5	14	18	32	46	65	101	124	138
Low	2	21	50	62	122	192	242	296	325	368
- Data Centres	2	21	47	53	106	168	205	239	255	273
- Major Loads	0	0	3	9	17	24	37	57	70	95
High	7	36	75	112	200	298	453	607	712	810
- Data Centres	2	21	53	81	154	227	338	434	509	570
- Major Loads	5	15	22	31	47	71	114	173	203	240

The breakdown of these forecasts at the network asset level, are presented in Appendix C.

Based on customer information and forecast completed in August 2024.

# 4. Appendix A – Incremental Customer Block Load Forecasts

This Appendix A details the incremental forecast maximum demand requirements of each major customer as advised by the customer<sup>5</sup> relative to 2023, and the moderated forecast maximum demands based on each growth scenario, using the method described in this document. Those block loads that are already included in JEN's underlying maximum demand forecast are instead included in Appendix B.

# 4.1 Customer Block Load No. A197

The major customer connection is an *In Flight* project.

**Uptake Scenario** 2028 2024 2025 2026 2027 2029 2030 2031 2032 2033 Customer Forecast 15.0 15.0 25.0 25.0 25.0 25.0 5.0 15.0 25.0 25.0 Base 0.0 4.5 13.5 13.5 13.5 13.5 13.5 17.5 17.5 17.5 9.0 15.0 Low 0.0 0.0 3.0 9.0 9.0 9.0 9.0 9.0 High 15.0 15.0 15.0 15.0 25.0 25.0 25.0 25.0 5.0 15.0

Table 4-1: A197 forecast maximum demand (MVA)

# 4.2 Customer Block Load No. A53

The likelihood of this first site load increase proceeding is *Medium*.

2025 2028 2029 2030 2032 2033 **Uptake Scenario** 2024 2026 2027 2031 Customer forecast 0.0 6.0 20.0 20.0 20.0 20.0 20.0 20.0 20.0 20.0 0.0 0.0 0.0 2.1 2.1 2.1 2.1 2.1 Base 0.0 2.1 Low 0.0 0.0 0.0 0.0 0.0 0.0 0.6 0.6 0.6 0.6 High 0.0 0.0 0.0 3.2 3.2 3.2 3.2 10.8 10.8 10.8

Table 4-2: A53 (a) forecast maximum demand (MVA) - First Site

The incremental maximum demand forecast for the second site is shown below. The likelihood of this second site load increase proceeding is *Medium*.

Table 4-3: A53 (b) forecast maximum demand (MVA) - Second Site

Uptake Scenario	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
Customer forecast	0.0	5.0	5.0	5.0	10.0	15.0	20.0	20.0	20.0	20.0
Base	0.0	0.0	0.0	0.0	1.8	1.8	1.8	3.5	4.2	2.5
Low	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.5	0.5	1.0
High	0.0	0.0	0.0	2.7	2.7	2.7	5.4	8.1	4.9	7.3

Based on customer information and project connection status completed in August 2024.

# 4.3 Customer Block Load No. A60

The likelihood of this major customer load increase proceeding is *High*.

Table 4-4: A60 forecast maximum demand (MVA)

Uptake Scenario	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
Customer forecast	0.0	9.4	13.3	16.3	25.1	30.9	37.1	44.1	47.8	52.6
Base	0.0	0.0	0.0	4.6	6.5	8.0	12.3	15.1	18.2	18.4
Low	0.0	0.0	0.0	0.0	1.9	2.7	3.3	5.0	6.2	7.4
High	0.0	0.0	6.7	9.6	11.7	18.1	22.2	26.7	31.7	34.4

#### 4.4 Customer Block Load No. TEMP16

The incremental maximum demand forecast for the second phase is shown below. The likelihood of this second phase customer connection proceeding is **Low**.

Table 4-5: TEMP16 forecast maximum demand (MVA) - Phase 2

Uptake Scenario	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
Customer forecast	0.0	0.0	0.0	0.0	0.0	0.0	0.0	20.8	27.6	34.4
Base	0.0	0.0	0.0	0.0	0.0	0.0	0.0	9.8	9.8	9.8
Low	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8.4	8.4	8.4
High	0.0	0.0	0.0	0.0	0.0	0.0	0.0	14.0	14.0	14.0

# 4.5 Customer Block Load No. DC01

The first phase of this data centre connection is an *In Flight* project.

Table 4-6: DC01 forecast maximum demand (MVA) - Phase 1

Uptake Scenario	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
Customer forecast	0.0	4.0	6.7	9.3	12.0	14.6	17.3	19.9	22.6	25.2
Base	0.0	4.0	6.7	9.3	12.0	14.6	17.3	19.9	22.6	25.2
Low	0.0	4.0	6.7	9.3	12.0	14.6	17.3	19.9	22.6	25.2
High	0.0	4.0	6.7	9.3	12.0	14.6	17.3	19.9	22.6	25.2

The incremental maximum demand forecast of the second phase is shown below. The likelihood of the second phase of this data centre connection proceeding is *High*.

Table 4–7: DC01 forecast maximum demand (MVA) – Phase 2

Uptake Scenario	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
Customer forecast	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.9	8.3

Uptake Scenario	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
Base	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Low	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
High	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.2

The incremental maximum demand forecast of the third phase is shown below, expected to be beyond 2033. The likelihood of the third phase of this data centre connection proceeding is *Unlikely*.

Table 4-8: DC01 forecast maximum demand (MVA) - Phase 3

Uptake Scenario	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
Customer forecast	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Base	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Low	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
High	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

# 4.6 Customer Block Load No. DC02

The first phase of this data centre connection is an *In Flight* project.

Table 4-9: DC02 forecast maximum demand (MVA) - Phase 1

Uptake Scenario	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
Customer forecast	1.8	13.0	18.0	18.0	18.0	0.0	0.0	0.0	0.0	0.0
Base	1.8	13.0	18.0	18.0	18.0	0.0	0.0	0.0	0.0	0.0
Low	1.8	13.0	18.0	18.0	18.0	0.0	0.0	0.0	0.0	0.0
High	1.8	13.0	18.0	18.0	18.0	0.0	0.0	0.0	0.0	0.0

The incremental maximum demand forecast of the second phase is shown below. The likelihood of the second phase of this data centre connection proceeding is *Medium*.

Table 4–10: DC02 forecast maximum demand (MVA) – Phase 2

Uptake Scenario	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
Customer forecast	0.0	0.0	0.0	0.0	0.0	20.0	37.6	45.0	50.5	67.1
Base	0.0	0.0	0.0	0.0	0.0	18.0	18.0	18.0	18.0	18.8
Low	0.0	0.0	0.0	0.0	0.0	18.0	18.0	18.0	18.0	18.0
High	0.0	0.0	0.0	0.0	0.0	18.0	18.0	18.0	22.5	27.0

# 4.7 Customer Block Load No. DC04

The first phase of this data centre connection is an *In Flight* project.

Table 4-11: DC04 forecast maximum demand (MVA) - Phase 1

Uptake Scenario	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
Customer forecast	0.0	0.0	16.9	19.3	23.0	37.4	51.9	65.8	67.6	69.5
Base	0.0	0.0	16.9	19.3	23.0	37.4	51.9	65.8	67.6	69.5
Low	0.0	0.0	16.9	19.3	23.0	37.4	51.9	65.8	67.6	69.5
High	0.0	0.0	16.9	19.3	23.0	37.4	51.9	65.8	67.6	69.5

The likelihood of the second phase of this data centre connection proceeding is **Low**. The incremental maximum demand forecast of this second phase is shown below.

Table 4-12: DC04 forecast maximum demand (MVA) - Phase 2

Uptake Scenario	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
Customer forecast	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8.8	12.5
Base	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Low	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
High	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

#### 4.8 Customer Block Load No. DC07

The first phase of this data centre connection is an *In Flight* project.

Table 4-13: DC07 forecast maximum demand (MVA) - Phase 1

Uptake Scenario	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
Customer forecast	0.0	3.9	5.5	6.7	10.4	12.7	15.3	18.2	19.7	21.7
Base	0.0	3.9	5.5	6.7	10.4	12.7	15.3	18.2	19.7	21.7
Low	0.0	3.9	5.5	6.7	10.4	12.7	15.3	18.2	19.7	21.7
High	0.0	3.9	5.5	6.7	10.4	12.7	15.3	18.2	19.7	21.7

The likelihood of the second phase of this data centre connection proceeding is *High*. The incremental maximum demand forecast of this second phase is shown below.

Table 4-14: DC07 forecast maximum demand (MVA) - Phase 2

Uptake Scenario	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
Customer forecast	0.0	0.0	0.0	0.0	5.9	8.3	10.2	15.7	19.3	23.2
Base	0.0	0.0	0.0	0.0	0.0	0.0	2.9	4.1	5.0	7.7
Low	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.2	1.7	2.0
High	0.0	0.0	0.0	0.0	0.0	4.2	6.0	7.3	11.3	13.9

# 4.9 Customer Block Load No. DC09

Table 4-15: DC09 forecast maximum demand (MVA)

Uptake Scenario	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
Customer Forecast	0.0	0.0	0.0	0.0	0.0	0.0	11.7	16.7	20.4	31.4
Base	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.1
Low	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
High	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.3	9.0

# 4.10 Customer Block Load No. DC10

The likelihood of the first phase of this data centre connection proceeding is *High*.

Table 4-16: DC10 forecast maximum demand (MVA) - Phase 1

Uptake Scenario	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
Customer forecast	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8.8	12.5	15.3
Base	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.3
Low	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
High	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.3	9.0

The likelihood of the second phase of this data centre connection proceeding is *Unlikely*.

Table 4-17: DC10 forecast maximum demand (MVA) - Phase 2

Uptake Scenario	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
Customer forecast	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	17.6	35.1
Base	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Low	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
High	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

# 4.11 Customer Block Load No. DC11

This data centre connection is *In Flight*.

Table 4–18: DC11 forecast maximum demand (MVA)

Uptake Scenario	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
Customer forecast	0.0	0.0	5.9	8.3	10.2	15.7	19.3	23.2	27.5	29.8
Base	0.0	0.0	0.0	5.3	7.5	9.2	14.1	17.4	20.9	20.9
Low	0.0	0.0	0.0	0.0	3.5	5.0	6.1	9.4	11.6	13.9
High	0.0	0.0	5.9	8.3	10.2	15.7	19.3	23.2	27.5	23.2

# 4.12 Customer Block Load No. DC12

This first phase of this data centre connection is *In Flight*.

Table 4-19: DC12 forecast maximum demand (MVA) - Phase 1

Uptake Scenario	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
Customer forecast	0.0	0.0	0.0	8.8	12.5	15.3	23.5	28.9	34.8	41.3
Base	0.0	0.0	0.0	0.0	7.9	11.3	13.7	21.2	26.0	28.9
Low	0.0	0.0	0.0	0.0	0.0	5.3	7.5	9.2	14.1	17.4
High	0.0	0.0	0.0	8.8	12.5	15.3	23.5	28.9	34.8	28.9

The likelihood of the second phase of this data centre connection proceeding is **Low**.

Table 4-20: DC12 forecast maximum demand (MVA) - Phase 2

Uptake Scenario	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
Customer forecast	0.0	0.0	0.0	0.0	3.0	4.3	5.3	8.2	10.0	12.1
Base	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6
Low	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
High	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	1.6	1.9

# 4.13 Customer Block Load No. DC17

The likelihood of the first phase of this data centre connection proceeding is *High*.

Table 4-21: DC17 forecast maximum demand (MVA) - Phase 1

Uptake Scenario	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
Customer forecast	0.0	0.0	0.0	0.0	0.0	10.0	23.7	42.1	65.1	75.0
Base	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.9	11.6	20.6
Low	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	4.7
High	0.0	0.0	0.0	0.0	0.0	0.0	7.2	17.1	30.3	46.9

The likelihood of the second phase of this data centre connection proceeding is Low.

Table 4-22: DC17 forecast maximum demand (MVA) - Phase 2

Uptake Scenario	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
Customer forecast	0.0	0.0	0.0	0.0	0.0	0.0	17.6	25.0	30.5	47.1
Base	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Low	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
High	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.3

# 4.14 Customer Block Load No. DC18

The likelihood of the first phase of this data centre connection proceeding is *High*.

Table 4-23: DC18 forecast maximum demand (MVA) - Phase 1

Uptake Scenario	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
Customer forecast	0.0	0.0	14.7	30.0	30.0	30.0	30.0	30.0	30.0	30.0
Base	0.0	0.0	0.0	0.0	7.2	7.2	7.2	7.2	10.5	10.5
Low	0.0	0.0	0.0	0.0	0.0	2.9	2.9	2.9	2.9	2.9
High	0.0	0.0	0.0	10.6	10.6	10.6	21.6	21.6	21.6	21.6

The likelihood of the second phase of this data centre connection proceeding is *Medium*.

Table 4-24: DC18 forecast maximum demand (MVA) - Phase 2

Uptake Scenario	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
Customer forecast	0.0	0.0	0.0	0.0	14.2	54.2	69.0	83.7	98.5	110.0
Base	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0	19.0	23.1
Low	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.4
High	0.0	0.0	0.0	0.0	0.0	0.0	7.7	29.3	37.2	45.2

# 4.15 Customer Block Load No. DC19

The likelihood of the first phase of this data centre connection proceeding is *Medium*.

Table 4–25: DC19 forecast maximum demand (MVA) – Phase 1

Uptake Scenario	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
Customer forecast	0.0	0.0	0.0	13.7	19.5	23.8	36.7	45.1	54.3	64.5
Base	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.9	4.1
Low	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
High	0.0	0.0	0.0	0.0	0.0	0.0	4.9	7.0	8.6	13.2

The likelihood of the second phase of this data centre connection proceeding is Low.

Table 4-26: DC19 forecast maximum demand (MVA) - Phase 2

Uptake Scenario	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
Customer forecast	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Base	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Low	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
High	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

# 4.16 Customer Block Load No. DC20

The likelihood of the first phase of this data centre connection proceeding is *High*.

Table 4-27: DC20 forecast maximum demand (MVA)

Uptake Scenario	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
Customer forecast	0.0	0.0	0.0	0.0	0.0	5.9	8.3	10.2	15.7	19.3
Base	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.9	4.1	5.0
Low	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.2	1.7
High	0.0	0.0	0.0	0.0	0.0	0.0	4.2	6.0	7.3	11.3

The likelihood of the second phase of this data centre connection proceeding is **Low**.

Table 4-28: DC20 forecast maximum demand (MVA)

Uptake Scenario	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
Customer forecast	0.0	0.0	0.0	0.0	0.0	0.0	22.2	31.7	38.7	59.6
Base	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Low	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
High	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8.0

#### 4.17 Customer Block Load No. DC21

The likelihood of this data centre connection proceeding is Low.

Table 4–29: DC21 forecast maximum demand (MVA)

Uptake Scenario	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
Customer forecast	0.0	0.0	0.0	0.0	0.0	0.0	0.0	23.4	33.3	40.7
Base	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Low	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
High	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

# 4.18 Customer Block Load No. DC22

Table 4-30: DC22 forecast maximum demand (MVA)

Uptake Scenario	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
Customer forecast	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	26.3	37.5
Base	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Low	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
High	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

# 4.19 Customer Block Load No. DC24

Table 4-31: DC24 forecast maximum demand (MVA)

Uptake Scenario	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
Customer forecast	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	26.3	37.5
Base	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Low	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
High	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

# 4.20 Customer Block Load No. DC26

The likelihood of this data centre connection proceeding is **Low**.

Table 4-32: DC26 forecast maximum demand (MVA)

Uptake Scenario	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
Customer forecast	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	26.3
Base	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Low	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
High	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

# 4.21 Customer Block Load No. DC27

The likelihood of this data centre connection proceeding is **Low**.

Table 4-33: DC27 forecast maximum demand (MVA)

Uptake Scenario	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
Customer forecast	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	17.6
Base	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Low	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
High	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

# 4.22 Customer Block Load No. DC28

The likelihood of this data centre connection proceeding is **Low**.

Table 4-34: DC28 forecast maximum demand (MVA)

Uptake Scenario	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
Customer forecast	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	26.3
Base	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Low	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
High	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

# 4.23 Customer Block Load No. DC29

Table 4-35: DC29 forecast maximum demand (MVA)

Uptake Scenario	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
Customer forecast	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	26.3
Base	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Low	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
High	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

# 4.24 Customer Block Load No. DC30

The likelihood of this data centre connection proceeding is **Low**.

Table 4-36: DC30 forecast maximum demand (MVA)

Uptake Scenario	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
Customer forecast	0.0	0.0	0.0	0.0	0.0	0.0	0.0	35.1	50.0	61.1
Base	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Low	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
High	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

# 4.25 Customer Block Load No. DC32

Table 4-37: DC32 forecast maximum demand (MVA)

Uptake Scenario	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
Customer forecast	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	17.6
Base	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Low	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
High	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

# 5. Appendix B – Underlying Customer Block Load Forecasts

This Appendix B details the incremental forecast maximum demand requirements of each major customer as advised by the customer relative to 2023, and the moderated forecast maximum demands based on each growth scenario, using the method described in this document. These block loads are already included in JEN's underlying maximum demand forecast, and are therefore not included in the network block loads of Appendix C.

# 5.1 Customer Block Load No. A154

The likelihood of this major customer upgrade proceeding is *High*. This block load is included in JEN's underlying forecast.

Uptake Scenario	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
Customer forecast	0.0	4.0	8.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0
Base	0.0	0.0	0.0	2.0	3.9	2.0	2.7	2.8	4.2	4.2
Low	0.0	0.0	0.0	0.0	0.8	1.6	0.8	0.8	0.8	0.8
High	0.0	0.0	2.9	5.8	2.9	5.8	8.6	8.6	8.6	8.6

Table 5–1: A154 forecast maximum demand (MVA)

#### 5.2 Customer Block Load No. A17 and A26

The major customer connection is an *In Flight* project. This block load is included in JEN's underlying forecast.

Uptake Scenario	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
Customer forecast	0.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0
Base	0.0	0.0	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9
Low	0.0	0.0	0.0	4.2	4.2	4.2	4.2	4.2	4.2	4.2
High	0.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0

Table 5-2: A17 forecast maximum demand (MVA)

The major customer connection is a *In Flight* project. This block load is included in JEN's underlying forecast.

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Uptake Scenario	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
Customer forecast	2.0	4.0	5.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
Base	0.0	1.8	3.6	4.2	3.6	4.2	4.2	4.2	4.2	4.2
Low	0.0	0.0	1.2	2.4	3.0	2.4	3.0	3.0	3.6	3.6
High	2.0	4.0	5.0	4.0	5.0	6.0	6.0	6.0	6.0	6.0

Table 5-3: A26 forecast maximum demand (MVA)

# 5.3 Customer Block Load No. A50

The likelihood of this major customer connection proceeding is *High*. This load is in JEN's underlying forecast.

Table 5-4: A50 forecast maximum demand (MVA)

Uptake Scenario	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
Customer forecast	0.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
Base	0.0	0.0	0.0	2.1	2.1	2.1	2.1	2.1	2.1	2.1
Low	0.0	0.0	0.0	0.0	1.2	1.2	1.2	1.2	1.2	1.2
High	0.0	0.0	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3

#### 5.4 Customer Block Load No. A54

The likelihood of this major customer connection proceeding is **Low**. This load is in JEN's underlying forecast.

Table 5-5: A54 forecast maximum demand (MVA)

Uptake Scenario	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
Customer forecast	0.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Base	0.0	0.0	0.0	0.0	0.0	0.0	0.7	0.7	0.7	0.7
Low	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
High	0.0	0.0	0.0	0.0	3.6	3.6	3.6	3.6	3.6	3.6

# 5.5 Customer Block Load No. A923

This major customer connection is an *In Flight* project. This load is in JEN's underlying forecast.

Table 5–6: A923 forecast maximum demand (MVA)

Uptake Scenario	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
Customer forecast	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0
Base	0.0	8.4	8.4	8.4	8.4	8.4	8.4	8.4	8.4	8.4
Low	0.0	0.0	7.2	7.2	7.2	7.2	7.2	7.2	7.2	7.2
High	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0

#### 5.6 Customer Block Load No. A997

This major customer connection upgrade is an *In Flight* project. This load is in JEN's underlying forecast.

Table 5-7: A997 forecast maximum demand (MVA)

Uptake Scenario	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
Customer forecast	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0
Base	0.0	7.7	7.7	7.7	7.7	7.7	7.7	7.7	7.7	7.7

Uptake Scenario	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
Low	0.0	0.0	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.6
High	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0

# 5.7 Customer Block Load No. TEMP5

The major customer connection is an *In Flight* project. This block load is included in JEN's underlying forecast.

Table 5–8: TEMP5 forecast maximum demand (MVA)

Uptake Scenario	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
Customer forecast	0.0	2.3	2.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3
Base	0.0	0.0	2.1	2.1	2.1	2.1	2.3	2.3	2.3	2.3
Low	0.0	0.0	0.0	1.4	1.4	1.4	1.4	1.4	2.0	2.0
High	0.0	2.3	2.3	2.3	2.3	3.3	3.3	3.3	3.3	3.3

# 5.8 Customer Block Load No. DC06

This data centre connection is now an *In Flight* project. This block load is included in JEN's underlying forecast.

Table 5-9: DC06 forecast maximum demand (MVA)

Uptake Scenario	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
Customer Forecast	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0
Base	0.0	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5
Low	0.0	0.0	9.0	9.0	9.0	9.0	9.0	9.0	9.0	9.0
High	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0

# 5.9 Customer Block Load No. TEMPA

This major customer connection is an *In Flight* project. This block load is included in JEN's underlying forecast.

Table 5-10: TEMPA forecast maximum demand (MVA)

Uptake Scenario	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
Customer forecast	0.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Base	0.0	0.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0
Low	0.0	0.0	0.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
High	0.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0

# 5.10 Customer Block Load No. TEMPB

This major customer connection is an *In Flight* project. This block load is included in JEN's underlying forecast.

Table 5-11: TEMPB forecast maximum demand (MVA)

Uptake Scenario	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
Customer forecast	0.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0
Base	0.0	0.0	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5
Low	0.0	0.0	0.0	9.0	9.0	9.0	9.0	9.0	9.0	9.0
High	0.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0

# 5.11 Customer Block Load No. TEMP16

The first phase of this major customer connection is an *In Flight* project. This block load is included in JEN's underlying forecast/

Table 5-12: TEMP16 forecast maximum demand (MVA) - Phase 1

Uptake Scenario	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
Customer forecast	0.0	0.0	0.0	0.0	14.0	14.0	14.0	0.0	0.0	0.0
Base	0.0	0.0	0.0	0.0	0.0	9.8	9.8	0.0	0.0	0.0
Low	0.0	0.0	0.0	0.0	0.0	0.0	8.4	0.0	0.0	0.0
High	0.0	0.0	0.0	0.0	14.0	14.0	14.0	0.0	0.0	0.0

# 6. Appendix C - Network Block Load Forecasts

This Appendix C details the incremental forecast maximum demand imposed on each affected network asset from the moderated forecast block load customer connections in Appendix A, for each growth scenario using the method described in this document. Summer forecasts are provided, with winter forecasts being 85% of the summer forecasts. Network block loads below <u>do not</u> include customer block loads already included in JEN's underlying forecast (as identified in Appendix B). Weighted scenario comprises 50% of Base, 25% of Low and 25% of High scenarios.

### 6.1 Network Block Loads for BLTS-TH-BLTS

Table 6-1: BLTS-TH-BLTS forecast block load maximum demand (MVA)

Uptake Scenario	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
Customer forecast	1.8	16.9	23.5	38.4	53.7	64.9	111.5	175.8	214.2	295.2
Base	1.8	16.9	23.5	24.7	28.4	30.7	36.2	40.3	45.6	56.4
Low	1.8	16.9	23.5	24.7	28.4	30.7	33.3	37.4	39.4	41.7
High	1.8	16.9	23.5	24.7	28.4	34.9	44.2	50.5	68.4	84.8
Weighted	1.8	16.9	23.5	24.7	28.4	31.8	37.5	42.1	49.7	59.8

# 6.2 Network Block Loads for KTS-AW-PV/NDT-KTS

Table 6–2: KTS-AW-PV/NDT-KTS forecast block load maximum demand (MVA)

Uptake Scenario	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
Customer forecast	0.0	4.0	6.7	18.1	27.5	34.2	46.1	65.8	103.3	137.3
Base	0.0	4.0	6.7	9.3	19.8	25.9	31.0	41.1	48.6	59.1
Low	0.0	4.0	6.7	9.3	12.0	19.9	24.8	29.1	36.7	42.6
High	0.0	4.0	6.7	18.1	24.5	29.9	40.8	49.9	65.2	69.3
Weighted	0.0	4.0	6.7	11.5	19.0	25.4	31.9	40.3	49.8	57.5

# 6.3 Network Block Loads for KTS-TMA-MAT-KTS

Table 6-3: KTS-TMA-MAT-KTS forecast block load maximum demand (MVA)

Uptake Scenario	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
Customer forecast	0.0	9.4	45.0	65.6	92.3	152.5	188.0	223.6	252.5	274.6
Base	0.0	0.0	16.9	23.9	36.8	52.6	71.4	93.1	115.3	121.5
Low	0.0	0.0	16.9	19.3	24.9	43.0	58.1	73.8	76.7	81.3
High	0.0	0.0	23.6	39.5	45.3	66.1	103.4	143.4	158.2	170.7
Weighted	0.0	0.0	18.6	26.6	35.9	53.6	76.1	100.9	116.3	123.7

# 6.4 Network Block Loads for SMTS-ST-SSS-SMTS

Table 6-4: SMTS-ST-SSS-SMTS forecast block load maximum demand (MVA)

Uptake Scenario	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
Customer forecast	0.0	0.0	5.9	8.3	10.2	21.5	49.9	65.0	108.3	198.9
Base	0.0	0.0	0.0	5.3	7.5	9.2	14.1	20.2	25.0	25.9
Low	0.0	0.0	0.0	0.0	3.5	5.0	6.1	9.4	12.7	15.6
High	0.0	0.0	5.9	8.3	10.2	15.7	23.5	29.2	34.9	42.5
Weighted	0.0	0.0	1.5	4.7	7.2	9.8	14.5	19.8	24.4	27.5

# 6.5 Network Block Loads for TTS-NEI-NH-WT-TTS

Table 6-5: TTS-NEI-NH-WT-TTS forecast block load maximum demand (MVA)

Uptake Scenario	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
Customer forecast	5.0	20.0	20.0	20.0	35.0	40.0	45.0	65.8	72.6	79.4
Base	0.0	4.5	13.5	13.5	15.3	15.3	15.3	30.8	31.5	29.8
Low	0.0	0.0	3.0	9.0	9.0	9.0	9.5	17.9	17.9	24.4
High	5.0	15.0	15.0	17.7	17.7	17.7	30.4	47.1	43.9	46.3
Weighted	1.3	6.0	11.3	13.4	14.3	14.3	17.6	31.7	31.2	32.5

# 6.6 Network Block Loads for TTS-PTN-EPN-EP-TTS

Table 6-6: TTS-PTN-EPN-EP-TTS forecast block load maximum demand (MVA)

Uptake Scenario	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
Customer forecast	0.0	6.0	20.0	20.0	34.0	34.0	34.0	20.0	20.0	20.0
Base	0.0	0.0	0.0	0.0	2.1	11.9	11.9	2.1	2.1	2.1
Low	0.0	0.0	0.0	0.0	0.0	0.0	9.0	0.6	0.6	0.6
High	0.0	0.0	0.0	3.2	17.2	17.2	17.2	10.8	10.8	10.8
Weighted	0.0	0.0	0.0	8.0	5.4	10.3	12.5	3.9	3.9	3.9

# 6.7 Network Block Loads for EPN

Table 6-7: EPN forecast block load maximum demand (MVA)

Uptake Scenario	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
Customer forecast	0.0	6.0	20.0	20.0	34.0	34.0	34.0	20.0	20.0	20.0
Base	0.0	0.0	0.0	0.0	2.1	11.9	11.9	2.1	2.1	2.1
Low	0.0	0.0	0.0	0.0	0.0	0.0	9.0	0.6	0.6	0.6
High	0.0	0.0	0.0	3.2	17.2	17.2	17.2	10.8	10.8	10.8
Weighted	0.0	0.0	0.0	0.8	5.4	10.3	12.5	3.9	3.9	3.9

# 6.8 Network Block Loads for NH

Table 6-8: NH forecast block load maximum demand (MVA)

Uptake Scenario	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
Customer forecast	0.0	5.0	5.0	5.0	10.0	15.0	20.0	20.0	20.0	20.0
Base	0.0	0.0	0.0	0.0	1.8	1.8	1.8	3.5	4.2	2.5
Low	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.5	0.5	1.0
High	0.0	0.0	0.0	2.7	2.7	2.7	5.4	8.1	4.9	7.3
Weighted	0.0	0.0	0.0	0.7	1.6	1.6	2.4	3.9	3.4	3.3

# 6.9 Network Block Loads for TH

Table 6-9: TH forecast block load maximum demand (MVA)

Uptake Scenario	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
Customer forecast	1.8	13.0	18.0	18.0	18.0	0.0	0.0	0.0	0.0	0.0
Base	1.8	13.0	18.0	18.0	18.0	0.0	0.0	0.0	0.0	0.0
Low	1.8	13.0	18.0	18.0	18.0	0.0	0.0	0.0	0.0	0.0
High	1.8	13.0	18.0	18.0	18.0	0.0	0.0	0.0	0.0	0.0
Weighted	1.8	13.0	18.0	18.0	18.0	0.0	0.0	0.0	0.0	0.0

# 7. Appendix D – Transmission Connection Asset Block Load Forecasts

This Appendix D details the incremental forecast maximum demand imposed on each affected transmission connection assets from the moderated forecast block load customer connections in Appendix A, for each growth scenario using the method described in this document. Summer forecasts are provided, with winter forecasts being 85% of the summer forecasts. Transmission Connection Asset block loads below <u>do not</u> include customer block loads already included in the Victorian DNSP's 2023 Terminal Station Demand Forecast (TSDF) (as identified in Appendix B). Weighted scenario comprises 50% of Base, 25% of Low and 25% of High scenarios.

# 7.1 Network Block Loads for BLTS66

Table 7-1: BLTS66 forecast block load maximum demand (MVA)

Uptake Scenario	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
Customer forecast	1.8	16.9	23.5	38.4	53.7	64.9	111.5	175.8	214.2	312.8
Base	1.8	16.9	23.5	24.7	28.4	30.7	36.2	40.3	45.6	56.4
Low	1.8	16.9	23.5	24.7	28.4	30.7	33.3	37.4	39.4	41.7
High	1.8	16.9	23.5	24.7	28.4	34.9	44.2	50.5	68.4	84.8
Weighted	1.8	16.9	23.5	24.7	28.4	31.8	37.5	42.1	49.7	59.8

#### 7.2 Network Block Loads for KTS66 East

Table 7-2: KTS66 East forecast block load maximum demand (MVA)

Uptake Scenario	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
Customer forecast	0.0	13.4	51.6	83.6	119.8	186.7	234.0	289.3	355.8	429.5
Base	0.0	4.0	23.6	33.2	56.6	78.5	102.4	134.2	163.9	180.6
Low	0.0	4.0	23.6	28.6	36.8	62.9	82.9	102.8	113.4	123.9
High	0.0	4.0	30.3	57.6	69.8	96.0	144.2	193.3	223.4	239.9
Weighted	0.0	4.0	25.2	38.1	55.0	78.9	108.0	141.1	166.1	181.2

# 7.3 Network Block Loads for KTS66 West

Table 7-3: KTS66 West forecast block load maximum demand (MVA)

Uptake Scenario	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
Customer forecast	0.0	0.0	0.0	0.0	0.0	10.0	41.3	67.1	95.6	122.1
Base	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.9	11.6	20.6
Low	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	4.7
High	0.0	0.0	0.0	0.0	0.0	0.0	7.2	17.1	30.3	53.2
Weighted	0.0	0.0	0.0	0.0	0.0	0.0	1.8	6.7	13.9	24.8

# 7.4 Network Block Loads for SMTS66

Table 7-4: SMTS66 forecast block load maximum demand (MVA)

Uptake Scenario	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
Customer forecast	0.0	0.0	5.9	8.3	10.2	21.5	49.9	65.0	108.3	198.9
Base	0.0	0.0	0.0	5.3	7.5	9.2	14.1	20.2	25.0	25.9
Low	0.0	0.0	0.0	0.0	3.5	5.0	6.1	9.4	12.7	15.6
High	0.0	0.0	5.9	8.3	10.2	15.7	23.5	29.2	34.9	42.5
Weighted	0.0	0.0	1.5	4.7	7.2	9.8	14.5	19.8	24.4	27.5

# 7.5 Network Block Loads for TTS66 East

Table 7–5: TTS66 East forecast block load maximum demand (MVA)

Uptake Scenario	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
Customer forecast	5.0	26.0	40.0	40.0	69.0	74.0	79.0	85.8	92.6	99.4
Base	0.0	4.5	13.5	13.5	17.4	27.2	27.2	32.9	33.6	31.9
Low	0.0	0.0	3.0	9.0	9.0	9.0	18.5	18.5	18.5	25.0
High	5.0	15.0	15.0	20.9	34.9	34.9	47.6	57.9	54.7	57.1
Weighted	1.3	6.0	11.3	14.2	19.7	24.6	30.1	35.6	35.1	36.4