## Portal Guide

Medium Density / High Rise Applications

Individual Metering Volume Boundary Metering Hybrid Metering Configuration



## Information about this guide

The purpose of this guide is to inform the user how to accurately complete an application, via the Jemena gas connection portal, <u>mygasservices.jemena.com.au</u> for residential medium density and high rise sites which utilise the individual metering configuration.

Installation Types:

### Individual Metering

### Volume Boundary Metering

### **Hybrid Metering**

This means individual Jemena metering for each apartment providing full consumer choice of Energy Retailer and pay for own usage. Depending on the type of appliance mix within the building this can be just individual Jemena gas meters or both individual Jemena gas meters and Jemena hot water meters (when a Centralised gas hot water plant is installed).

This means **no** individual Jemena metering for each apartment. A single Jemena gas meter installed at the boundary of the site that has an Energy Intermediary, Energy Retailer or other acceptable arrangement in place for consumers downstream of the Volume Boundary Meter.

This means individual Jemena **hot water metering** only for each apartment providing full consumer choice of Energy Retailer and consumers pay for their own usage when a Centralised gas hot water plant is installed. **No** individual Jemena gas meters for each apartment are provided. Apartment gas usage is via a Jemena Volume Boundary gas meter which the Body Corporate chooses an Energy Retailer and apportions costs via the Strata Unit Entitlement by-laws.

The guide shows in detail, what information is required to be entered into each field of the application and what documents should be uploaded to support the application.

Where text is in **RED**, you must provide input to these fields.

Where text is in **BLACK**, this means that these field are optional and do not require input if the information is not relevant. Where text is in **BLUE**, do not enter anything in these fields unless otherwise instructed over the phone by Jemena staff.

## **New Application — Select your type of application**

New Application		
Please select from the following list of services		
New Connection	*	
Detached residential premises Gas connection for new or existing detached homes. Residential detached premises include single free standing homes and can also include a semi-detached or a duplex.		Select this application type
Medium density / high-rise — 1 Gas connection for a multi-density building or property usually on community or strata title. Includes one or more gas meters and/or hot water meters.		
Commercial All connections to commercial premises. A commercial premises is defined by the property usage and not the load. This application applies to both volume customers (annul load less than 10TJs per annum) and demand customers (annual load greater than 10TJs per annum).	Jal	
Additions & Alterations	*	
Meter or service upgrade / downgrade If you've recently or are about to install or remove gas appliances, you may need a different meter as the amount of gas you need might have changed.		
Meter relocation If you require a stand-by service or you're thinking of, or recently have had renovations done, you may want to have your meter moved to a new location.		
Pulse counter If your business requires real-time access to gas flow data, you may wish to connect a pulse counter to the gas meter.		
Abolishment	~	
Decommissioning and meter removal Decommissioning and meter removal is the disconnection of the gas supply at the gas main and the removal of any metering equipment we've supplied. We don't remove the pipes between the gas main and the meter.	he	
		-l

#### Legend:

## **Applicant Details**

**New Connection** 

### Medium density / high-rise



#### Legend:

## **Customer Details**

**New Connection** 

### Medium density / high-rise



#### Legend:

## Individual Metering Medium Density / High Rise Applications



## **Step 1 - Site Address Details**

**New Connection** 

### Medium density / high-rise



#### Legend:

## **Step 2 - Connection Details**

#### **New Connection**

### Medium density / high-rise



#### Legend:

## **Step 3 - Meter Details Table**

### New Connection Medium density / high-rise

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The meter details table should capture only meters which customers will setup Energy accounts for.

Meters r	required						
	* Please list all meters that will be req You will also need to specify the applian	uired at this ces that will	s <b>ite (including res</b> be in use under eac	idential, common, ar h meter, and specify t	nd commercial meter he load figures per m	ers). 🚺	
	Meter type	Quantity	Avg load per meter (MJ/hr)	Annual load per meter (GJ/yr)	Appliances (eg. cook top, oven, etc)	Meter type required	
	Select 💠	1			Appliances	Gas only \$	×
	+ Add another meter						

## **Step 3 - Meter Details (Individual HWU) Example**

**New Connection** 

### Medium density / high-rise

**Residential** — This meter type is used to define how many meters are required for the dwellings in the development. If Centralised Hot Water and Gas Cooking/Heating is being installed "Meter Type Required" is "**Gas and Water**". If Centralised Hot Water with electric cooktops are being installed "Meter Type Required" is "**Water Only**". If individual hot water units are being installed "Meter Type Required" is "**Gas Only**".

Residential    40 80 B/F		
	B/Point, HW Gas and w	ater 🛊 🗶 📉
Common \$ 1 80 4 Stra	Strata BBQ Gas only	* *

For Units	Meter Type	Quantity	Average Load per meter: (MJ/hr)	Annual load per meter: (GJ/yr)	Appliances	Meter Type	1
Input	Residential	Number of Units	80	N/A	Cooktops, Bayonet, Hot Water	Gas Only	

## **Step 3 - Meter Details (Individual HWU) Example**

New Connection

### Medium density / high-rise

1 2 3 4 Review & submit
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• **Common** – This meter type is used for common area appliances, such as Pool Heater, BBQs etc.

Meter type	Quantity	Avg load per meter (MJ/hr)	Annual load per meter (GJ/yr)	cook top, oven, etc)	Meter type required	
Residential	40	80		B/Point, HW	Gas only \$	×
Common \$	1	80	4	Strata BBQ	Gas only \$	×

For Common Facilities	Meter Type	Quantity	Average Load per meter: (MJ/hr)	Annual load per meter: (GJ/yr)	Appliances	Meter Type	1
Input	Common	Number of common points	80	4	Strata BBQ	Gas Only	

If there are no common area appliances this row is not required.

## **Step 3 - Meter Details (Centralised HWU) Example**

### New Connection Medium density / high-rise

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Meter type	Quantity	Avg load per meter (MJ/hr)	Annual load per meter (GJ/yr)	cook top, oven, etc)	Meter type required	
Residential	40	80		B/Point, HW	Gas and water \$	×
Common \$	1	80	4	Strata BBQ	Gas only \$	×

For Units	Meter Type	Quantity	Average Load per meter: (MJ/hr)	Annual load per meter: (GJ/yr)	Appliances	Meter Type	1
Input	Residential	Number of Units	40	N/A	Cooktops, Bayonet, Hot Water	Gas and Water	

#### Legend:

## **Step 3 - Meter Details (Centralised HWU) Example**

### New Connection Medium density / high-rise

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Meter type	Quantity	Avg load per meter (MJ/hr)	Annual load per meter (GJ/yr)	cook top, oven, etc)	Meter type required	
Residential 🔶	40	80		B/Point, HW	Gas and water \$	×
Common 💠	1	80	4	Strata BBQ	Gas only \$	×

For Strata BBQ	Meter Type	Quantity	Average Load per meter: (MJ/hr)	Annual load per meter: (GJ/yr)	Appliances	Meter Type	1
Input	Common	Number of common points	80	4	Strata BBQ	Gas Only	

Click Next at the Bottom of the Page

#### Legend:

## **Step 3 – Upload Paperwork**

### New Connection Medium density / high-rise



Upload pa	aperwork
	Please refer to the guide for medium-density and high-rise connections which has information, and additional documents that you'll need to attach to this application.
	Accepted file types: .pdf, .gif, .jpg, .jpeg, .png, .tiff, .tif File size limit: 8 MB + Add files

The table below indicates the documentation required when submitting an application. The following slides show examples of these documents.

Unit Type	Documents
Individual Hot Water	Site plan – Detailing proposed PValve and BReg locations
Centralised Hot Water	<ul> <li>Site plan - Detailing proposed PValve and BReg locations</li> <li>ADG-003A - Certification of Common Factor, signed by hydraulic engineer</li> <li>ADG-003B - Common Factor Estimating Sheet, with appropriate workings</li> <li>Gas and Hot Water Schematic</li> </ul>

## **Volume Boundary Metering** Medium Density / High Rise Applications



## **Step 1 – Site Address Details**

#### **New Connection**

### Medium density / high-rise



#### Legend:

## **Step 1 – Site Address Details**

#### **New Connection**

### Medium density / high-rise



#### Legend:

## **Step 2 - Connection Details 1**

#### **New Connection**

### Medium density / high-rise



#### Legend:

## **Step 2 - Connection Details 2**

#### **New Connection**

### Medium density / high-rise



## **Step 3 - Meter Details Table**

### New Connection Medium density / high-rise

1         2         3         4 Review & submit
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The meter details table should capture only meters which customers will setup Energy accounts for.

Types of Meters for Individual Metering Applications are;

• Volume Boundary Meter — This meter is for cooking and common facilities. For this type of application the "Meter Type Required" is always "Gas Only"

The next slide provides an example of how to fill this table out.

NELEIS IE	equiled						
	* Please list all meters that will be req You will also need to specify the applian	uired at this	s site (including res be in use under eac	<b>idential, common, an</b> h meter, and specify th	nd commercial meter he load figures per m	ers). 🕤	
	Meter type	Quantity	Avg load per meter (MJ/hr)	Annual load per meter (GJ/yr)	Appliances (eg. cook top, oven, etc)	Meter type required	
	Select ♦	1			Appliances	Gas only \$	×

## **Step 3 - Meter Details Example**

#### **New Connection**

### Medium density / high-rise

1         2         3         4 Review & submit
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Meter type	Quantity	Avg load per meter (MJ/hr)	Annual load per meter (GJ/yr)	Appliances (eg. cook top, oven, etc)	Meter type required	
Volume Boundary Meter \$	1			Appliances	Gas only \$	×

For VBM	Input
Meter Type:	Volume Boundary Meter
Quantity:	1
Average Load per meter: (MJ/hr)	Calculated Number
Appliances:	CHW & C/Tops
Annual load per meter:	17GJ x Number of units
(GJ/yr)	Gas Only

#### Legend:

## **Step 3 - Upload paperwork**

### **New Connection** Medium density / high-rise



Upload pa	aperwork	
	Please refer to the guide for medium-density and high-rise connections which has information, and additional documents that you'll need to attach to this application.	
	Accepted file types: .pdf, .gif, .jpg, .jpeg, .png, .tiff, .tif File size limit: 8 MB Add files	

#### **Documents**

- Site plan Detailing proposed path valve and volume boundary meter locations ٠
- Optional: Gas and Hot water Schematics (This may be requested if required) ۲

# Hybrid Metering

Medium Density / High Rise Applications



## **Step 1 - Site Address Details**

#### **New Connection**

### Medium density / high-rise



#### Legend:

## **Step 1 – Site Address Details**

#### **New Connection**

### Medium density / high-rise



#### Legend:

## **Step 2 - Connection Details 1**

#### **New Connection**

### Medium density / high-rise



#### Legend:

## **Step 2 - Connection Details 2**

#### **New Connection**

### Medium density / high-rise



#### Legend:

## **Step 3 - Meter Details Table**

### New Connection Medium density / high-rise

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The meter details table should capture only meters which customers will setup Energy accounts for.

Types of Meters for Individual Metering Applications are;

- **Residential** This meter type is used to define how many meters are required for the dwellings in the development. For this type of application "Meter Type Required" is always "**Water Only**"
- Volume Boundary Meter This meter is for cooking and common facilities. For this type of application the "Meter Type Required" is always "Gas Only"

The next slide provides an example of how to fill this table out.

Meters re	equired						
	* Please list all meters that will be red You will also need to specify the appliar	<b>juired at this</b> nces that will	s site (including res be in use under eac	idential, common, ar	nd commercial mete he load figures per m	ers). 🚺	
	Meter type	Quantity	Avg load per meter (MJ/hr)	Annual load per meter (GJ/yr)	Appliances (eg. cook top, oven, etc)	Meter type required	
	Select 🛟	1			Appliances	Gas only \$	×
	+ Add another meter						

## **Step 3 - Meter Details Example**

#### **New Connection**

### Medium density / high-rise

1 2 3 4 Review & submit
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Neters required						
Meter type	Quantity	Avg load per meter (MJ/hr)	Annual load per meter (GJ/yr)	Appliances (eg. cook top, oven, etc)	Meter type required	
Residential	\$ 1			Appliances	Water only \$	×
Volume Boundary Meter	\$ 1			Appliances	Gas only \$	×
+ Add another meter						

For Units	Input	For VBM	Input
Meter Type	Residential	Meter Type	Volume Boundary Meter
Quantity	No. of Units	Quantity	1
Average Load per meter: (MJ/hr)	40	Average Load per meter (MJ/hr)	Calculated Number
Appliances	CHW	Appliances	C/Tops and if applicable (Pool Heater, BBQ)
Annual load per meter: (GJ/yr)	N/A	Annual load per meter (GJ/yr)	No. of Units x 1GJ + 4 GJ for each BBQ + Pool
Meter Type	Water Only	Meter Type	Gas Only

## **Step 3 – Upload paperwork**

### New Connection Medium density / high-rise



Upload pa	aperwork	
	Please refer to the guide for medium-density and high-rise connections which has information, and additional documents that you'll need to attach to this application.	
	Accepted file types: .pdf, .gif, .jpg, .jpeg, .png, .tiff, .tif File size limit: 8 MB + Add files	

#### Documents

- Site plan Detailing proposed P/Valve and B/Reg locations
- ADG-003A Certification of Common Factor, signed by hydraulic engineer
- ADG-003B Common Factor Estimating Sheet, with appropriate workings for each hot water plant
- Gas and Hot Water Schematics

## Step 3 - Site Plan

New Connection Medium density / high-rise



## Step 3 - ADG-003A

**New Connection** 

### Medium density / high-rise

1	2	3	4 Review & submit
	ADG-003A CERTIFICATION OF COMMO	N FACTOR	
	Where a Gas Centralised Hot Water System (GCHWS) is prop completed by the Owner-Developer to confirm appropriate the taken place. This document is to be read with reference to De "Design Guide for Gas Centralised Hot Water Systems". Refer, <u>www.jemena.com.au/connectionguides/</u> Jemena reserves the right to decline the application if any infi Completion of this application form does not guarantee that J Any offer for gas connection is subject to the terms and condi	osed, as a condition of connection, this form is to be ermal efficiency design for the proposed GCHWS has mena Gas Networks (NSW) Ltd document, ADG-003 ormation provided is incomplete or incorrect. emena will make an offer for connection. titions of the applicable Jemena connection offer.	
	STEP 1. Fill in the Jemena Reference Number (RGS) in the top Development Manager.         STEP 2. Complete the builder / developer details and the supple BUILDER / DEVELOPER         COMPANY NAME	right hand corner as provided by your Network y address details below.	This is an example of the ADG-003A document.
	CONTACT OFFICER	PH / MOB:	
	Ges Centralised Hot Water System Sa an appropriate thermain design and that the system is designed to meet the minimum performan Gas Centralised Hot Water Systems at appropriate design condition <b>q SEE ATTACHED CALCULATION OF COMMON FACTO</b>	process for proposed GLHWS has been undertaken ce standards specified in ADG-003 Design Guide for ons:	
	DESIGNER SIGNATURE		
	STEP 4. Facsimile or mail this form and attachments back to y OFFICE USE O Designer Confirmation Noted Application for Meters (ADG-022A) Received	our Network Development Manager.  NLY Date Date	
	Meter Costs Entered into RGS	Entered By	

## **Step 3 - ADG-003B**

**New Connection** 

### Medium density / high-rise



ADG-003B	- DESIGN GUID	E - MODEL FOF	R ESTIMATION OF	COMMON FA - 22/0	CTOR FOR GAS 8/2007)	S CENTRALISE	O HOT WATER S	SYSTEMS (GCH	WS) (ISSUE 4	This is an example of how the ADG-003B should be filled out.
	Note	e [1] : All cells with v	vnite backgrounds are t	inlocked and requi	re designer input. Al	l other cells are lock	ed and cannot be cha	angea.		
DATE -				26-May-07						Part 1 of 3.
ADDRESS -										
NUMBER OF A	PARTMENTS -			40						
SPECIFY PRO	POSED BOILER PLAN	T HERE -		00.00%						
GCHW THERM				80.00%						
BOILER MAIN	ENANCE RATE (MJ/D	AY)		19.0						
TEMPERATUR	E RISE ( ° C)			50						
			[A] HOT WA	TER AND EN	IERGY DEMAN	D SECTION				
			Table A.1 - Calc	ulation of Number of	Points from Inputted A	partment Details				
APARTMENT DWELLINGS	KITCHEN	BATH ROOM	LAUNDRY	EN-SUITE	DISH WASHER	NO. OF BEDROOMS	SUM OF POINTS / UNIT	NO OF UNITS	SUM OF POINTS	
10	1	1	1	0	1	1	5	10	50	
20	1	1	1	1	1	2	7	20	140	
0	0	0	0	0	0	5	5	0	0	
0	0	0	0	0	0	0	0	0		
								TOTAL NO. OF POINTS=	270	
	Т	able A.2 Calculated No	ominal Hot Water Flow (at 6	5deg.C Before Mixin	g With Cold Water) and	l Equivalent Energy Cor	itent			
TOTAL NO. OF POINTS	CALCULATED COINCIDENCE FACTOR	HOT WATER POINT DELIVERY (lit/min/point)	MAX. WATER DELIVERY FROM BOILER (lit/min)	AVERAGE HOT WATER SUPPLY FROM HOURLY RECOVERY RATE FROM GCHWS (lit/hr)	SPECIFY DAILY HOT WATER DEMAND PER APARTMENT (lit/apart./day)	CALCULATED DAILY HOT WATER (65°C) DEMAND (lit/day)	ENERGY REQUIRED TO HEAT 1.0 LITRE WATER TO TEMP (MJ/lit)	GAS ENERGY INPUTED TO BOILER FOR WATER CONSUMED (MJ/day)		
270	0.166	4.56	204.4	3,066	110	4,400	0.262	1,151		

### **Step 3 - ADG-003B**

**New Connection** 

### Medium density / high-rise

1	2	3	4 Review & submit
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			[B] H	IEAT LOSS A	ND GAIN SECT	TION		
		Table	B.1 PIPEWORK HEAT LC	OSSES			Table B.2 OTHER HE	AT LOSSES
PIPE SIZE	INSULATION THICKNESS (mm)	" 65 <sup>o.</sup> C HOT WATER / 15 deg.C AMBIENT with Thermotec 4 zero insulation" )	" 50 <sup>0.</sup> C TEMPERED WATER System/ 15deg.C AMBIENT with ARMAFLEX insulation" )	INPUT LENGTH OF PIPE HERE	UNIT HEAT LOSS FOR COLUMN <f></f>	UNIT HEAT LOSS FOR COLUMN <g></g>	HW METER LOSS @ 0.1MJ/hr PER Meter (MJ/day)	98.4
(mm OD)	<nominate insulation="" type<br="">here&gt;</nominate>	(kJ/H/m)	(kJ/H/m)	(m)	(kJ/H)	(kJ/H)	BOILER MAINTENANCE RATE (MJ/day)	19.6
15	nil	112.3	50.4	0	0.0	0.0		
15	20	31.7	19.1	23	729.1	439.3		
15	25	25.2	16.9	95	2,394.0	1,605.5		
20	nil	144.7	78.5	0	0.0	0.0		
20	20	36.6	25.9	0	0.0	0.0		
20	25	31.3	22.7	295	9,233.5	6,696.5		
25	nil	177.1	97.9	0	0.0	0.0		
25	20	40.3	28.4	0	0.0	0.0		
25	25	37.4	25.2	98	3,665.2	2,469.6		
32	nil	218.2	124.9	0	0.0	0.0		
32	20	47.5	32.2	0	0.0	0.0		
32	25	41.8	28.1	65	2,717.0	1,826.5		
40	nil	258.1	149.0	0	0.0	0.0		
40	20	58	36.4	0	0.0	0.0		
40	25	50.8	31.1	18	914.4	559.8		
50	nil	324.7	200.2	0	0.0	0.0		
50	20	64.1	44.6	0	0.0	0.0		
50	25	58	38.5	20	1,160.0	770.0		
00	nil	3/2.9	202.6	U	0.0	0.0		
65	20	/1.0	54./	U	0.0	0.0		
80	20 nil	04.4	40.4	0	515.2	3/1.2		
80	111	439.0	513.0	0	0.0	0.0		
80	20	00.0	03 40.7	0	0.0	0.0		
100	20	590.1	49.7	0	0.0	0.0		
100	20	106.2	390.2	0	0.0	0.0		
100	20	88.9	59.2	0	0.0	0.0		
100	23	00.9	Total Central Hot Water Pip	bing Heat Loss ( MJ/H) =	21.3	14.7		
			Total Central Hot Water Pipin	g Heat Loss (MJ/day) =	511.9	353 7		

This is an example of how the ADG-003B should be filled out.

Part 2 of 3.

## **Step 3 - ADG-003B**

Table B.3 ENERGY GAINS FROM AUGMENTATIONS (MJ/day)

**New Connection** 

### Medium density / high-rise

1 2 3 4 Review	v & submit
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This is an example of how the ADG-003B should be filled out.



SOLAR THERMAL PANELS (MJ/day)		define panels and config		8.8						
OTAL ENERGY AUGMENT	ATION			c	.0					
[C] HEAT CALCULATIONS AND COMMON FACTOR										
	CONSUMED HOT WATER ENERGY (MJ/day)	BOILER MAINTENANCE AND METER/VALVE LOSSES (MJ/day)	LOSSES FROM CHWP MANIFOLD (MJ/day)	HEAT GAINS FROM AUGMENTATION (MJ/day)	TOTAL ENERGY	COMMON FACTOR (MJ/lit)	GENRALISED COMMON FACTOR (kJ/lit/deg.C)			
COLUMN <f> INSULATION</f>	1,151.4	118.0	511.9	0.0	1,781.3	0.40	8.1			
COLUMN <g></g>	1,151.4	118.0	353.7	0.0	1,623.1	0.37	7.4			

Portal Guide Site Plan and Examples

## **Step 3 - Gas and Hot Water Schematic**

### New Connection Medium density / high-rise



Good example of a Hot Water / Gas Schematic

### **Contact Information**

If it is unclear from this guide what is expected for Medium Density/High Rise applications, please contact either Neale Hilton, Elle Peters or Bardia Kamalalavi for advice.

Neale Hilton - neale.hilton@jemena.com.au

Elle Peters - elle.peters@jemena.com.au

Bardia Kamalalavi - bardia.kamalalavi@jemena.com.au



