Queensland Government Statistician's Office

Surat Basin population report, 2023

Introduction

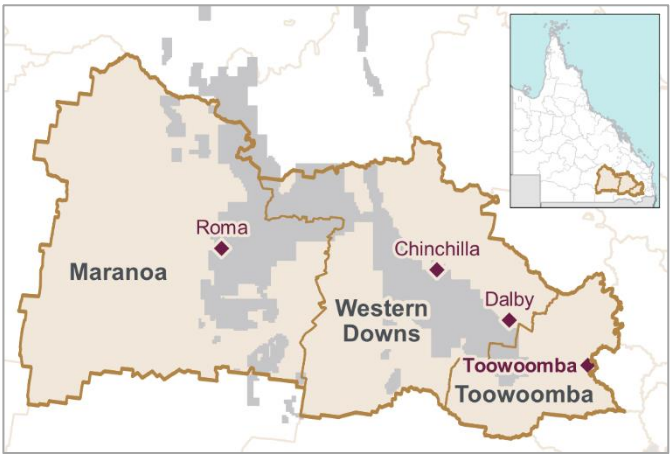
The resource sector in regional Queensland utilises fly-in/fly-out and drive-in/drive-out (FIFO/DIDO) workers as a source of labour supply. These non-resident workers live in regional areas while on-shift. The Australian Bureau of Statistics' (ABS) resident population estimates for these areas do not include non-resident workers.

The non-resident population represents the number of FIFO/DIDO workers who are on-shift in the region at a given point in time. This group includes those employed in construction, production, and maintenance at mining and gas industry operations, renewable energy projects and resource-related infrastructure.

This report provides non–resident population estimates for the Surat Basin during the last week of June 2023. It also includes full–time equivalent (FTE) population estimates, which aggregate the resident and non-resident populations to provide a more complete indicator of demand for certain services.

Estimates within this report are primarily derived from the annual Survey of Accommodation Providers conducted by the Queensland Government Statistician's Office (QGSO). The survey includes worker accommodation villages (WAVs), hotels, motels and caravan parks.

Figure 1 **Surat Basin region**



The Surat Basin – at a glance

The Surat Basin (Figure 1) is a major energy region, based on coal seam gas production, coal mining and electricity generation. The region comprises the local government areas (LGAs) of Maranoa, Western Downs and Toowoomba.

Estimated population at June 2023:

Non-resident population	3,755
Resident population	226,880
Full–time equivalent population	230,635

Key findings

Key findings of this report include:

- The Surat Basin had an estimated non-resident population of 3,755 persons in June 2023, around 245 persons (+7%) more than in June 2022.
- The increase in the region's non-resident population in 2022–23 was due largely to substantial growth in the number of workers engaged in gas activity in Maranoa. This more than made up for reduced numbers of renewable energy construction workers and gas workers at some operations in Western Downs.
- At the LGA level, Western Downs had a non-resident population of 2,130 persons (or 57% of the regional total) in June 2023. Maranoa (1,445 persons or 38%) and Toowoomba (180 persons or 5%) made up the balance.
- In 2022–23, the non-resident population increased in Maranoa (+630 persons or +77%) and Toowoomba (+10 persons or +6%). FIFO/DIDO numbers in Western Downs decreased over this period (–395 persons or –16%).
- The Surat Basin's full–time equivalent (FTE) population was estimated at 230,635 persons in June 2023, comprising 226,880 residents and 3,755 non-resident workers on-shift. Non-resident workers on-shift made up slightly less than 2% of the region's FTE population.
- In June 2023, more than three-quarters of non-resident workers in the Surat Basin stayed in WAVs while on-shift (2,885 persons or 77%). The remainder (870 persons or 23%) stayed in other accommodation such as hotels/motels and caravan parks.
- More than half of the Surat Basin's non-resident population in June 2023 was counted in rural areas (2,025 persons or 54%) rather than in town. In Maranoa, most stayed in rural areas (1,255 persons or 87%), while in Western Downs, most stayed in town (1,360 persons or 64%).
- The proportion of vacant and available hotel/motel rooms in the region increased to 27% in June 2023, up from 24% in June 2022.

Surat Basin update, 2022–23

The Surat Basin (Figure 3) in southern Queensland is a major energy region and the state's main source of CSG supply. CSG-related activity continues to provide most of the region's resource-related employment, with three large CSG to liquefied natural gas (LNG) projects and smaller gas companies engaged in operations and development. Coal mines, power stations and renewable energy projects also contribute to resource industry activity in the region (Table 5). In 2022–23:

- **Australia Pacific LNG (APLNG)** reported a production rebound from December 2022, with drier weather and improved field access allowing higher workover volumes and increasing the number of wells online in the June 2023 quarter (Origin Energy, 2023a; Origin Energy, 2023b). A planned cyclical maintenance program at upstream gas processing facilities commenced in 2022–23; the multi-year program is expected to continue until 2024–25.
- **Santos Gladstone LNG (GLNG)** reported strong gas production for the first half of 2023 and remained focused on driving down operating costs and increasing production (Santos, 2023a). A record well connection program to support production growth was on track, with 87 wells drilled and 142 wells connected across the GLNG acreage in the June quarter (Santos, 2023b).
- **Queensland Curtis LNG (QCLNG)** continued its gas operations in Western Downs in 2022–23 (Shell plc, 2023). The joint venture also progressed its plans to drill and connect approximately 145 new gas wells between 2022 and 2024 (Shell plc, 2022).

Other companies also contributed to CSG activity in the Surat Basin in 2022–23. Work continued on the first phase of Arrow Energy's **Surat Gas Project** near Dalby, which includes drilling of more than 600 wells, and construction of related pipeline and surface infrastructure (Arrow Energy, 2023a). Armour Energy, Arrow Energy, Denison Gas and Senex Energy all continued to deliver gas to the Australian market during 2022–23 (Armour Energy, 2023; Arrow Energy, 2023b; Denison Gas, 2023; Senex Energy, 2023).

In Western Downs, renewable energy project activity continued in 2022–23. At June 2023:

- Work continued on seven projects, most of which had reached the testing and commissioning phase: **Blue Grass Solar Farm**, **Columboola Solar Farm**, **Dalby Hybrid Power Plant**, **Dulacca Wind Farm**, **Edenvale Solar Park**, **Wandoan South Solar Project** and **Western Downs Green Power Hub** (AEMO, 2023; QGSO, 2022; QGSO, 2023).
- Three projects had completed commissioning and were in service: **Coopers Gap Wind Farm**, **Gangarri Solar Farm** and **Wandoan South BESS** (AEMO, 2023).
- Three new projects were under construction: **Kogan Renewable Hydrogen Demonstration Plant**, **Wambo Wind Farm** and **Western Downs Battery** (CS Energy, 2023; Neoen, 2023; Wambo Wind Farm, 2023).

While there were fewer non-resident workers on-shift engaged in renewable energy project construction in June 2023 than in recent years, they continued to make a notable contribution to the total non-resident population of Western Downs.

Two Surat Basin coal mines restarted operations in 2022–23. **New Acland Mine** in Toowoomba LGA transitioned out of care and maintenance, with mining operations commencing in May 2023 (New Hope Group, 2023). **Wilkie Creek** mine near Dalby in Western Downs reopened in April 2023, following its sale to New Wilkie Energy in 2021 (New Wilkie Energy, 2023).

Overall, the Surat Basin's non-resident population increased between June 2022 and June 2023, with more workers engaged in CSG activity in Maranoa more than making up for reduced numbers of gas and renewables workers in Western Downs.

Non-resident population

The non-resident population of the Surat Basin was estimated at 3,755 persons at the end of June 2023, around 245 persons or 7% higher than in June 2022 (Table 1).

More than half of the region's non-resident population in June 2023 was in Western Downs (2,130 persons or 57%). A further 1,445 persons (or 38%) were counted in Maranoa, with the remainder in Toowoomba (180 persons or 5%).

The non-resident population of Maranoa recorded a substantial increase of 630 persons (+77%) between June 2022 and June 2023, driven by increased CSG activity including drilling, well connections and maintenance work. In Western Downs, the non-resident population declined by 395 persons (–16%) over this period, with fewer workers at some CSG operations and engaged in renewable energy construction. The non-resident population of Toowoomba remained relatively stable, up by just 10 persons in 2022–23. Compared with the other Surat Basin LGAs,

Non-resident population

The non-resident population is the number of fly-in/fly-out or drive-in/drive-out (FIFO/DIDO) workers who are living in the area of their workplace temporarily, and who have their usual place of residence elsewhere.

Due to shift arrangements, not all members of the non-resident workforce are present in the local area at one time. For that reason, the non-resident population refers to the number of non-resident workers on-shift at a given point in time, rather than the total non-resident workforce.

Toowoomba has a much smaller non-resident population, which in June 2023 included workers associated with the gas industry, power station operations and coal mining.

Table 1 Non-resident population, Surat Basin LGAs, as at June

	2022	2023	Change, 2022 to 2023	
LGA	— persons —		persons	%
Maranoa	815	1,445	630	77
Toowoomba	170	180	10	6
Western Downs	2,525	2,130	–395	–16
SURAT BASIN TOTAL	**3,510**	**3,755**	**245**	**7**

Figures in tables in this report have been rounded to the nearest five; see Notes at end of report for details.

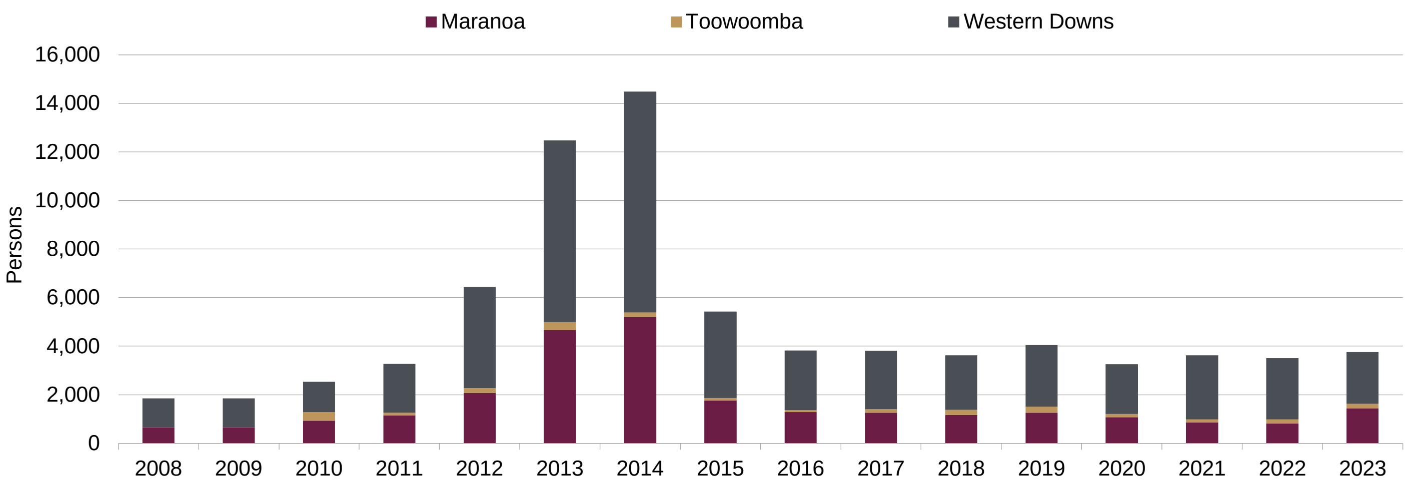
Source: QGSO estimates

As Figure 2 shows, the non-resident population of the Surat Basin grew from 1,855 persons in 2008 to reach a peak of 14,490 persons in 2014, before declining to 5,425 persons in 2015. This steep increase and rapid decline reflect the presence of large, temporary FIFO/DIDO workforces engaged in the construction of major infrastructure for three large CSG projects, and the subsequent transition from the construction to production phase.

Since 2016, the number of non-resident workers on-shift in the Surat Basin has remained comparatively stable, at between 3,260 and 4,040 persons. Over this time, the region's baseline non-resident population has largely comprised the ongoing production, drilling and routine maintenance workforces of the major CSG projects. Construction of additional gas gathering infrastructure, gas expansion projects, and major maintenance events have also added considerable numbers of non-resident workers on-shift in some years. Workers associated with smaller gas companies and other activities including renewable energy projects, power station maintenance, coal mining, road and rail works have also contributed to the non-resident population since 2016. In particular, workers engaged in solar and wind farm construction in Western Downs made a sizeable contribution to the region's non-resident population in 2021 and 2022.

The small increase in the region's non-resident population in the year to June 2023 was due to a combination of factors, with growth in Maranoa more than making up for reduced numbers in Western Downs. In Maranoa, more gas industry activity, including drilling, well connections and maintenance work, drove the non-resident population to its highest level since 2015. In Western Downs, many of the renewable energy projects that had been under construction the previous year had reached the testing and commissioning phase or were in service by June 2023, with large, temporary construction workforces replaced by smaller commissioning and operations workforces. Reduced numbers of gas workers associated with some operations also contributed to the decline.

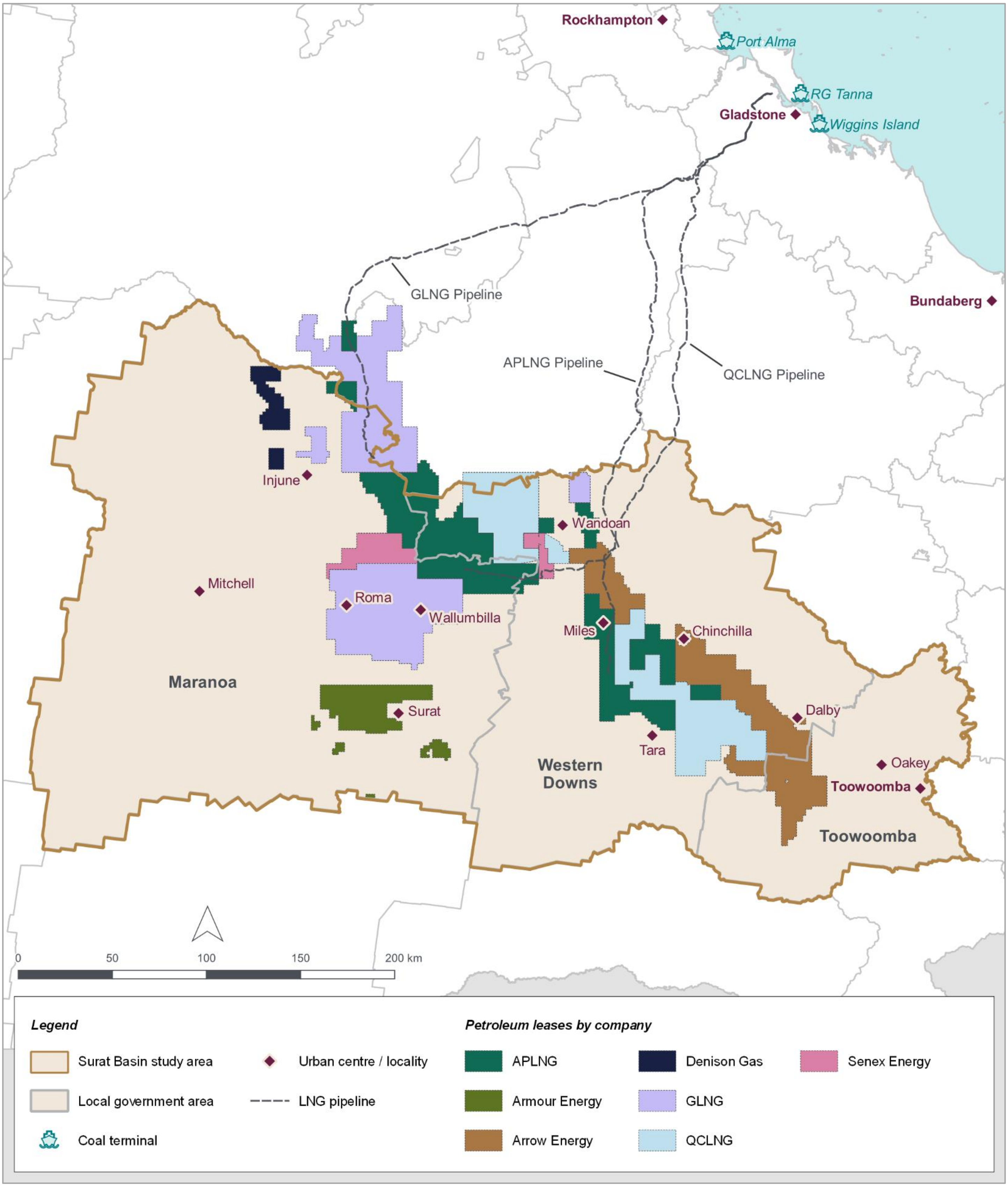
Figure 2 Non-resident population, Surat Basin LGAs, as at June



Note: Estimates for 2008 do not include Toowoomba LGA. Data for the Surat Basin were not collected in 2009 and estimates are extrapolated from 2008 data.

Source: QGSO estimates

Figure 3 Petroleum leases by company[(a)], Surat Basin



(a) Includes petroleum lease (PL) applications and PLs granted as at June 2023. Does not include PLs held by other companies.

Source: Queensland Government, 2023; QGSO, 2023

Full–time equivalent (FTE) population

In June 2023, the Surat Basin had an estimated FTE population of 230,635 persons, comprising 226,880 residents and 3,755 non-resident workers on-shift (Table 2). Non-resident workers on-shift represented less than 2% of the region's FTE population.

At the LGA level, Toowoomba had the region's largest FTE population in June 2023 (179,435 persons), though the non-resident component comprised less than 1% of the FTE. Non-resident workers on-shift accounted for 6% of Western Down's FTE population of 36,715 persons and 10% of Maranoa's FTE population of 14,485 persons.

Full–time equivalent population

The FTE population measure is the sum of the resident population (people who live in the area permanently) and the non-resident population (i.e., the number of non-resident workers on-shift).

The FTE population measure provides a more complete estimate of total demand for certain services and infrastructure in regions with a high incidence of FIFO/DIDO workers.

Table 2 FTE population estimates, Surat Basin LGAs and selected UCLs, June 2023

LGA	Location(a)	UCL	Resident population(b)	Non-resident population	FTE population
			— persons —		
Maranoa	In town	Injune	325	20	345
		Roma	6,655	135	6,790
		Other towns(c)	1,465	30	1,495
	Rural areas		4,595	1,255	5,855
Maranoa total			***13,040***	***1,445***	***14,485***
Toowoomba	In town	Millmerran	1,395	20	1,415
		Toowoomba	111,855	145	112,000
		Other towns(c)	41,315	15	41,330
	Rural areas		24,695	0	24,695
Toowoomba total			***179,255***	***180***	***179,435***
Western Downs	In town	Chinchilla	6,395	740	7,130
		Dalby	12,380	305	12,680
		Miles	1,365	205	1,570
		Wandoan	435	115	550
		Other towns(c)	1,735	5	1,740
	Rural areas		12,275	770	13,045
Western Downs total			***34,585***	***2,130***	***36,715***
SURAT BASIN TOTAL			**226,880**	**3,755**	**230,635**

(a) Refer to Notes at end of report for explanation of 'in town' and 'rural areas'.

(b) QGSO unpublished data – provisional and subject to revision.

(c) UCLs with only one accommodation provider or fewer than 20 non-resident workers are aggregated in 'Other towns'.

Source: QGSO estimates

Non–resident population distribution

In June 2023, more than half of the Surat Basin's non-resident population was counted in rural areas (2,025 persons or 54%), with the balance in town (1,730 persons or 46%) (Table 2). This distribution varied across the three LGAs. In Maranoa, non-resident workers on-shift were predominantly counted in rural areas (1,255 persons or 87%), while in Western Downs, most stayed in town (1,360 persons or 64%). All non-resident workers on-shift in Toowoomba were counted in town (180 persons).

Several urban centres and localities (UCLs) in the Surat Basin housed non-resident workers on-shift in June 2023 (Table 2). Three UCLs in Western Downs had non-resident populations of 200 or more—Chinchilla (740 persons), Dalby (305 persons) and Miles (205 persons). In Maranoa, the UCL of Roma (135 persons) had the largest number of non-resident workers on-shift.

Since the transition from CSG construction to production, non-resident population change and distribution in the LGAs of Maranoa and Western Downs have been driven by different influences.

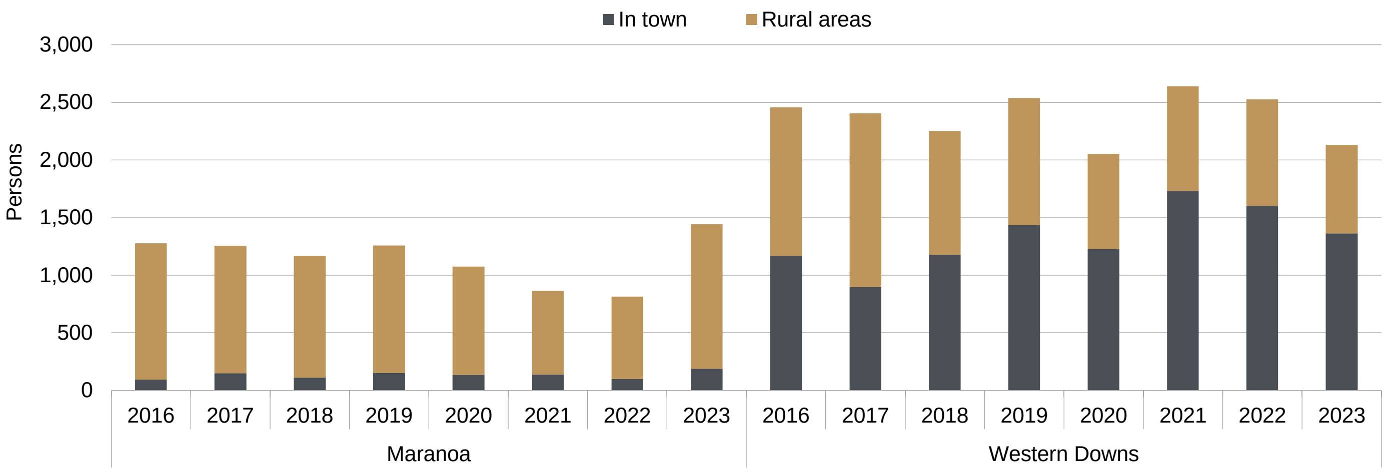
Resource activity in Maranoa is primarily associated with the CSG industry, with most of the non-resident population engaged in CSG operations, gas gathering, drilling and maintenance activities. Since 2016, the majority of non-resident workers on-shift in Maranoa have stayed in rural areas due to the comparatively remote location of most gas industry activity in the LGA, with smaller numbers counted in town (Figure 4).

In Western Downs, in addition to ongoing CSG activity, the non-resident population reflects a broader range of influences including renewable energy projects, coal mining and power station operations. The relative proximity of CSG operations and developments and other resource projects to population centres in Western Downs has enabled greater use of in-town accommodation by non-resident workers.

As Figure 4 shows, the non-resident population of Maranoa declined overall between 2016 (1,280 persons) and 2022 (815 persons), as the number of gas workers reduced. Unusually high levels of gas industry activity, including drilling, well connections and maintenance work, saw the non-resident population increase substantially to reach 1,445 persons in June 2023. While most non-resident workers on-shift stayed in rural areas (1,255 persons), there was also some overflow to in-town accommodation (185 persons).

Compared with Maranoa, Western Downs' non-resident population has been more variable over the period since 2016, ranging from 2,055 persons (June 2020) to 2,640 persons (June 2021). These changes reflect the wider range of industry influences in Western Downs, with annual fluctuations mostly due to CSG developments and renewable energy construction activities. The non-resident population in town in Western Downs declined to 1,360 persons in June 2023, led by a reduction in the number of renewables workers as many projects reached the commissioning stage. The number of non-resident workers on-shift in rural areas also fell (to 770 persons), due to fewer gas workers at some operations.

Figure 4 Non-resident population by location[(a)], Maranoa and Western Downs LGAs, as at June



(a) Refer to Notes at end of report for explanation of 'in town' and 'rural areas'.

Source: QGSO estimates

Non–resident worker accommodation

WAVs are the main accommodation type used in the Surat Basin, accounting for more than three-quarters of the non-resident workers on-shift in the region in June 2023 (2,885 persons or 77%) (Table 3). The balance of the non-resident population (870 persons or 23%) stayed in other accommodation such as hotels/motels and caravan parks.

The number of non-resident workers on-shift counted in WAVs in the Surat Basin increased by 135 persons between June 2022 and June 2023, while numbers in other accommodation grew by 110 persons.

Worker accommodation villages (WAVs)

WAVs are commonly used to house non-resident workers on-shift. WAVs typically consist of demountable dwellings arranged in a village, with common dining, laundry and recreational facilities.

At the LGA level, Maranoa recorded a large increase in the number of non-resident workers on-shift in WAVs in the year to June 2023 (+540 persons). Greater WAV usage was driven by more gas workers involved in drilling, well connections and maintenance work. There was also an increase in other accommodation in Maranoa (+90 persons) associated with higher numbers of gas and road workers.

In Western Downs, the non-resident population in WAVs declined in the year to June 2023 (–405 persons), which outweighed a small increase in other accommodation (+10 persons). Decreased WAV usage was associated with a reduction in the number of gas and renewable energy construction workers.

Table 3 Non-resident population by accommodation type, Surat Basin LGAs, as at June

	WAVs	Other[a]	Total	WAVs	Other[a]	Total
	2023			Change, 2022–23		
LGA	— persons —					
Maranoa	1,270	170	1,445	540	90	630
Toowoomba[b]	0	180	180	0	10	10
Western Downs	1,615	520	2,130	–405	10	–395
SURAT BASIN TOTAL	**2,885**	**870**	**3,755**	**135**	**110**	**245**

(a) 'Other' includes hotels/motels, caravan parks and other accommodation. Refer to Notes at end of report for additional information.

(b) There were no WAVs located in Toowoomba in June 2022 or June 2023.

Source: QGSO estimates

The proportion of vacant and available hotel/motel rooms in the Surat Basin increased to 27% in June 2023 (Table 4), compared with 24% in June 2022 and 37% in June 2021.

At the LGA level, the proportion of vacant and available hotel/motel rooms in Maranoa decreased from 21% in June 2022 to 15% in June 2023. Reduced availability was associated with increased demand from CSG and road workers. Availability in Western Downs also fell (from 31% in June 2022 to 29% in June 2023), due to demand from resource industry workers and other guests.

In contrast, Toowoomba recorded an increase in the proportion of hotel/motel rooms that were vacant and available, from 21% in June 2022 to 30% in June 2023. The LGA of Toowoomba attracts a broader clientele compared with Maranoa and Western Downs, reflecting the role of Toowoomba city as a major regional centre.

Table 4 Vacant and available hotel/motel rooms, Surat Basin LGAs, as at June

	Occupied by non-resident workers	Vacant and available[a]	Balance[a]	Total hotel/motel rooms[a]	Vacant and available hotel/motel rooms		
	2023				2021	2022	2023
LGA	— rooms —				— % —		
Maranoa	135	95	420	650	21	21	15
Toowoomba	105	555	1,215	1,880	45	21	30
Western Downs	385	345	450	1,180	33	31	29
SURAT BASIN TOTAL	**625**	**1,000**	**2,085**	**3,710**	**37**	**24**	**27**

(a) Refer to Notes at end of report for explanation of 'vacant and available' and 'balance'.

Source: QGSO estimates

Table 5 Existing resource operations and projects under construction(a), Surat Basin, June 2023

Category	Operation / project name	Company name	LGA
CSG	APLNG Operations and Development	APLNG(b)	Maranoa, Western Downs
CSG	Arrow Energy Surat Operations	Arrow Energy	Toowoomba, Western Downs
CSG	Atlas	Senex Energy	Western Downs
RE	Blue Grass Solar Farm	X-Elio Australia	Western Downs
RI	Braemar Power Station	Alinta Energy	Western Downs
RI	Braemar 2 Power Station	Arrow Energy	Western Downs
CM	Cameby Downs Mine	Yancoal Australia	Western Downs
RE	Columboola Solar Farm	Hana Financial Investment	Western Downs
CM	Commodore Mine	Millmerran Power Partners	Toowoomba
RI	Condamine Power Station	QGC	Western Downs
RE	Dalby Hybrid Power Plant	FRV Australia	Western Downs
RI	Darling Downs Power Station	Origin Energy	Western Downs
CSG	Denison South (Yellowbank)	Denison Gas	Maranoa
RE	Dulacca Wind Farm	Octopus Australia	Western Downs
RE	Edenvale Solar Park	Sapphire Energy	Western Downs
CSG	GLNG Operations and Development	GLNG(c)	Maranoa, Western Downs
CSG	Kincora Project	Armour Energy	Maranoa
CM	Kogan Creek Mine	CS Energy	Western Downs
RI	Kogan Creek Power Station	CS Energy	Western Downs
RI	Kogan Renewable Hydrogen Demonstration Plant	CS Energy	Western Downs
RI	Millmerran Power Station	Genuity	Toowoomba
CM	New Acland Mine	New Hope Group	Toowoomba
RI	Oakey Power Station	Shell Energy	Toowoomba
CSG	QCLNG Operations and Development	QCLNG(d)	Western Downs
CSG	Roma North	Senex Energy	Maranoa
RI	Roma Power Station	Origin Energy	Maranoa
CSG	Surat Gas Project	Arrow Energy	Toowoomba, Western Downs
RE	Wambo Wind Farm	Cubico Sustainable Investments / Stanwell	Western Downs
RE	Wandoan South Solar Project	Vena Energy	Western Downs
RE	Western Downs Battery	Neoen Australia	Western Downs
RE	Western Downs Green Power Hub	Neoen Australia	Western Downs
CM	Wilkie Creek	New Wilkie Energy	Western Downs

CM = coal mine CSG = coal seam / conventional gas RE = renewable energy RI = related infrastructure

(a) Includes gas operations, coal mining operations, resource industry-related infrastructure, and projects under construction as at June 2023.

(b) Australia Pacific LNG (APLNG) is a joint venture between Origin Energy, ConocoPhillips and Sinopec.

(c) Santos Gladstone LNG (GLNG) is a joint venture between Santos, PETRONAS, Total and KOGAS.

(d) Queensland Curtis LNG (QCLNG) is a joint venture between QGC, CNOOC and Tokyo Gas.

Source: QGSO 2023

Notes

LGA – local government area UCL – urban centre and locality

Place names refer to local government areas unless otherwise specified.

Data in this report are derived from surveys conducted by QGSO in 2023 and other sources. The Survey of Accommodation Providers counted non-resident workers staying in worker accommodation villages (WAVs), hotels/motels, caravan parks and other commercial accommodation during the last week of June 2023. Short-term and overnight visitors are not regarded as non-resident workers. The Resource Employment Survey collected workforce information from all resource companies with existing operations and projects in the Surat Basin as at June 2023.

Non-resident workers are people who fly-in/fly-out or drive-in/drive-out (FIFO/DIDO) to work and live in the area temporarily while rostered on, and who have their usual place of residence elsewhere. This group includes employees, contractors and associated sub-contractors employed in construction, production, and maintenance at mining and gas industry operations and projects, renewable energy projects and resource related infrastructure. Figures in this report refer to the number of non-resident workers on-shift or present in the area at a given point in time and should not be confused with total non–resident workforce numbers.

Non–resident population data presented in this report are a point-in-time measure, based on the best information available at the time of the surveys. Non–resident worker numbers may vary in response to changing production demands, prevailing weather and industrial disputes. At the time of the 2023 surveys, the number of non-resident workers on-shift in the Surat Basin was unaffected by widespread adverse weather events or industrial action.

Resident population estimates for 2023 are unpublished QGSO estimates, which are provisional and subject to revision.

'In town' includes populations counted in defined urban centres and localities (UCLs), as well as non-resident workers housed within 5km of town. 'Rural areas' include populations outside of defined UCLs, including non-resident workers more than 5km from town.

'Other' accommodation includes hotels, motels, caravan parks and other private rental accommodation.

'Vacant and available' refers to hotel/motel rooms that were not occupied by non-resident workers or other guests and were vacant and available on the night of the survey. 'Balance' includes hotel/motel rooms occupied by other guests, rooms that were not occupied but held for non-resident workers under permanent booking arrangements, or rooms unavailable for other reasons.

Figures in tables have been rounded to the nearest five. As a result of rounding, discrepancies may occur between sums of the component items and totals. Percentages and other calculations are made prior to rounding of figures and discrepancies might therefore exist between these calculations and those that could be derived from the rounded figures.

References

Australian Energy Market Operator (AEMO) (2023) *Generation information – NEM Generation Information Archive July 2023*, 13 July 2023 https://www.aemo.com.au/energy-systems/electricity/national-electricity-market-nem/nem-forecasting-and-planning/forecasting-and-planning-data/generation-information

Armour Energy (2023) *Annual report for the year ended 30 June 2023*, 29 September 2023 https://investorhub.armourenergy.com.au/announcements/4416824

Arrow Energy (2023a) *Surat Gas Project*, accessed 11 December 2023 https://www.arrowenergy.com.au/about-us/where-we-operate/surat-basin/surat-gas-project

Arrow Energy (2023b) *Where we operate – Surat Basin*, accessed 11 December 2023 https://www.arrowenergy.com.au/about-us/where-we-operate/surat-basin

CS Energy (2023) *Kogan Renewable Hydrogen Generation Plant* https://www.csenergy.com.au/what-we-do/renewable-energy/hydrogen/kogan-renewable-hydrogen-project

Denison Gas (2023) *Production Projects – Denison South*, accessed 16 November 2023 https://denisongas.com.au/operations/denison-south/

Neoen (2023) *Neoen expands the size of its Western Downs Battery in Queensland, Australia to 270 MW / 540 MWh*, 26 July 2023 https://neoen.com/en/news/2023/neoen-expands-the-size-of-its-western-downs-battery-in-queensland-australia-to-270-mw-540-mwh/

New Hope Group (2023) *Annual Report 2023*, 19 October 2023 https://newhopegroup.com.au/wp-content/uploads/2023/10/New-Hope-Group-Annual-Report-2023.pdf

New Wilkie Energy (2023) *Commencement of new mining project in Dalby, Queensland*, 20 April 2023 https://nwe.energy/?p=528

Origin Energy (2023a) *Origin Energy 2023 Full Year Results*, 17 August 2023 https://www.originenergy.com.au/wp-content/uploads/263/2023_0817_Consol_FY2023_Investor-Pres_Final_Master.pdf

Origin Energy (2023b) *Quarterly Report June 2023*, 31 July 2023 https://www.originenergy.com.au/wp-content/uploads/122/2023_0730_June-23-QR-consol_Final.pdf

Queensland Government Statistician's Office

Queensland Government Statistician's Office (QGSO) (2022) *Surat Basin population report, 2022* https://www.qgso.qld.gov.au/statistics/theme/population/non-resident-population-queensland-resource-regions/surat-basin#past-release-surat-basin-population-report

Queensland Government Statistician's Office (QGSO) (2023) *Resource Employment Survey*, unpublished data

Santos (2023a) *2023 Half-year results,* 23 August 2023 https://www.santos.com/wp-content/uploads/2023/08/Santos-2023-Half-Year-Results.pdf

Santos (2023b) *Second Quarter Report for period ending 30 June 2023*, 20 July 2023 https://www.santos.com/wp-content/uploads/2023/07/2023-Second-Quarter-Report.pdf

Senex Energy (2023) *2022 Sustainability Report*, 29 September 2023 https://senexenergy.com.au/wp-content/uploads/2023/10/SEEWK5659_Sustainability-Report_FA_spreads.pdf

Shell plc (2022) *Shell's QGC Business Develops Next Phase of Gas*, 8 February 2022 https://www.shell.com.au/media/2022-media-releases/shell-qgc-business-develops-next-phase-of-gas.html

Shell plc (2023) *Annual report and accounts for the year ended December 31 2022*, 9 March 2023 https://reports.shell.com/annual-report/2022/_assets/downloads/shell-annual-report-2022.pdf

Wambo Wind Farm (2023) *Queensland takes its next step towards a renewable energy future as works commence at Wambo Wind Farm*, 8 June 2023 https://wambowindfarm.wpengine.com/wp-content/uploads/2023/06/Wambo-Wind-Farm-Media-release-08-June-2023.pdf