The Impact of Gas Connection Policy on Land Development, Housing Supply and House Prices

Joint Submission: Urban Development Institute of Australia (Victoria) and the Association of Land Development Engineers

Ausnet gas – change in policy

In late 2019, Ausnet Services (Gas) implemented a change in policy whereby they would only allow 2 stages of gas pipe to be installed in subdivisions at any one time without the gas mains being commissioned (ie charged with gas and handed over to Ausnet). The exact requirements from Ausnet are as follows:

> *No more than two stages may be installed at any one time without being commissioned. For further stages to be laid previous stages must be commissioned.*
>
> *Statement of compliance will not be issued for non-commissioned stages, strictly at Ausnet Services' discretion.*

Practical problems resulting from Ausnet's two stage policy

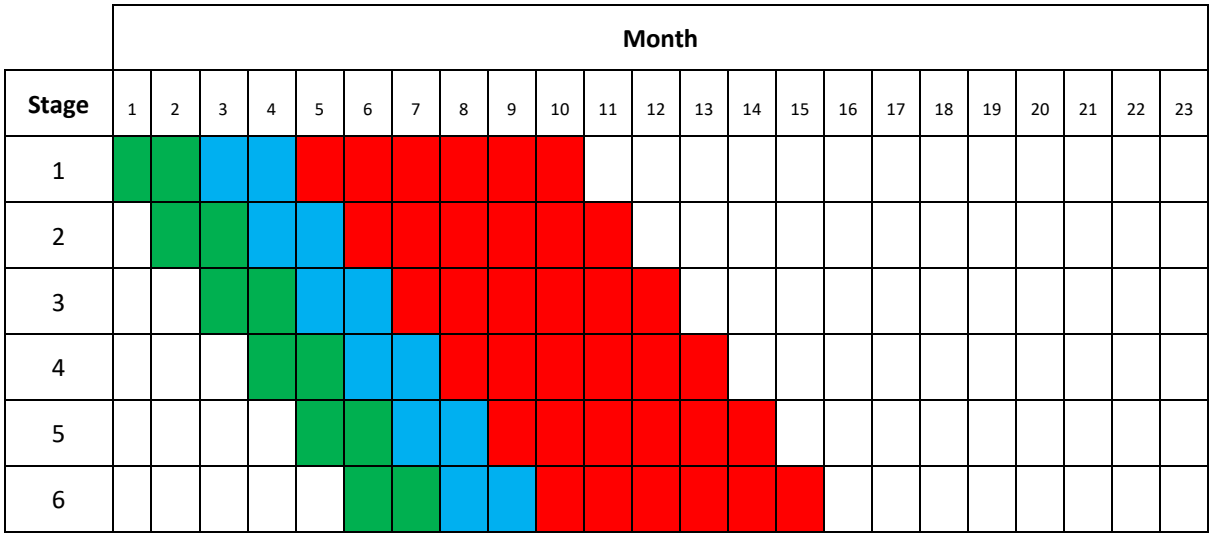
To implement Ausnet's 2 stage policy, developers have only two possible courses of action:

1. Charge the gas mains soon after they are laid in the ground
   There is considerable further construction works needed to be installed following the installation of gas (as explained below). The developer's civil contractors have rightly expressed safety concerns with construction works undertaken in the vicinity of live gas mains in the ground. Whilst historically this was common practice, with an improved focus on safety, and more stringent OH&S laws in force, most consider this to be an unacceptable risk in the current environment.
   In some cases, gas extensions to service the development or stage in question have not been completed, which would make it impossible to charge the mains in this instance.
2. Delay construction commencement until the two active stages are complete
   Delaying construction so that there is only two stages of construction underway at the one time would have significant impacts on the development industry, and these issues are explained in detail below. Ausnet are essentially forcing this situation by not approving/ issuing gas plans if there are already two stages of works under construction.

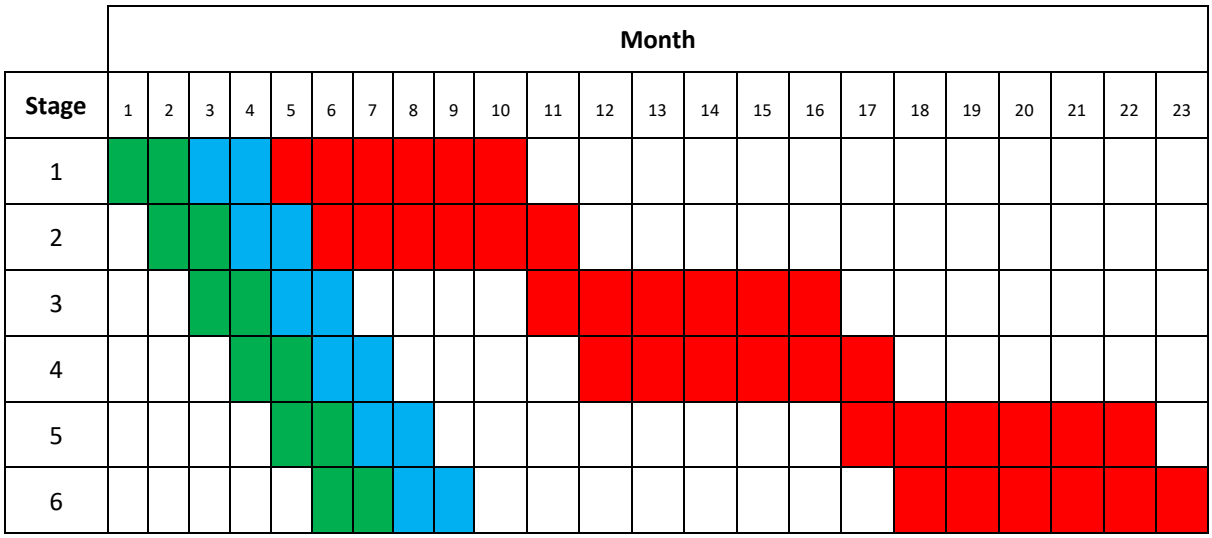
Impacts on delivery time frames

Residential land development projects are delivered in a stage, with a continuous sequence of design, approvals and then construction. The pace of development is dictated by the number of lot sales that developers make each week, and usually there will be a number of stages of a development simultaneously in design, with authorities for approval or under construction. Contractors who are engaged by the developer to construct the works will generally be constructing multiple stages of development at one time (with completion dates staggered to match the sales that have occurred some months earlier).

The new Ausnet policy is having a significant impact on the delivery of residential housing estates, with the impacts illustrated in the two charts below, where green bars indicate the design phase, blue indicates approvals and red indicates construction. In these examples, each stage is assumed to comprise 60 lots, design is assumed to take 2 months, approvals 2 months and construction 6 months.



Program 1 – *Typical delivery schedule with no Ausnet 2 stage requirement*



Program 2 – *Typical delivery schedule with Ausnet 2 stage requirement*

From the example programs above, it can be seen that if the Ausnet 2 stage requirement is enforced as illustrated in Program 2, there will be a 8 month delay in completing the 6 stage development. This delay will have impacts including:

- Additional financing costs for developers, putting at risk the viability of the project
- Delays for home builders waiting for stages to be delivered
- Impacts on the State Revenue Office/ State Government, with delays in stamp duty for this 8 month period.
- Additional costs in subdivisional construction, resulting in efficiencies due to the staggered nature of the construction works
- Impacts on employment, resulting from subdued subdivisional construction activity and house builders being delayed from starting house construction due to subdivisional works being delayed.
- Additional costs for new home owners, as delays experienced by house builders will be passed on to the ultimate purchasers.

Financial impacts

The financial impact to developers has been modelled using two scenarios (refer Appendix 2). This demonstrates that on an estate of 20 stages, that the margin is reduced by $10M, reducing the IRR (Internal rate of return) to 10.47%. Considering the risks associated with land development, most developers would consider it unviable for a project to have less than 15 to 20% IRR. Alternatively additional costs would need to be passed on to lot purchasers, which adds costs for new home purchasers and contributes to the issue of unaffordable housing.

Due to the negative financial impact of the Ausnet 2 stage policy, it is highly likely that developers will choose to not install gas in future developments so as to preserve financial feasibility of projects especially for projects that were conceived before the proposed policy was introduced. This will have a compounding effect on installation of future gas networks in new suburban estates and potentially undermine the viability of the broader gas distribution industry through the reduction in future customer and usage growth.

Construction Sequencing – and testing prior to authority handover

It is important to note that gas is only one of the many services that developers need to provide to service future housing lots, and that there is a logical sequencing of construction activities that needs to take place in order to efficiently construct the works required. The installation of services follows the following logical sequence:

- Sewer is installed first, as this is the deepest service
- Stormwater drainage is installed next, as this is the second deepest service
- Gas and water are installed in a shared trench. Typically these two services are laid at the same time by the same contractor, before the trench is backfilled.
- Electricity and telecommunications are installed in a shared trench.

Each respective service authority allows their service to be installed in accordance with the above construction sequencing, with a strict regime of testing required prior to authority handover at Statement of Compliance time, to ensure that the assets are fit for purpose and have not been damaged during subsequent construction activities.

Why have Ausnet introduced this new policy?

The problem that Ausnet is trying to solve by implementing the new policy is to prevent having a large number of stages with gas mains laid, but not commissioned in new housing estates. Ausnet have found when gas mains are laid but not commissioned, then subsequent contractors inadvertently cause damage to the pipelines, which adds additional cost for Ausnet as they need engage a gas contractor to locate and fix the damage. Finding exactly where the gas mains have been damaged is also a difficult task after the mains have been backfilled. It is not always clear who has caused the damage, which means that it is difficult for Ausnet to pass these costs on to the contractor who was at fault.

Another possible issue is that Ausnet's gas contractor does not receive full payment from Ausnet until the gas mains are commissioned. Hence any delay in commissioning the gas mains (to suit the overall subdivisional construction sequencing) would mean a delay in payment to the gas contractor, which obviously would be cash flow problem for them. The development industry believe that this issue can be simply solved by modifying the commercial arrangements between Ausnet and the gas contractor, which authorises an appropriate amount of payment to be released once the gas mains have been laid, with the balance to be paid upon final commissioning.

Proposed solution

The development industry's proposed solution to the above issues is treat the gas the same as all the other services that are installed. That is, install the gas main and test the main prior to commissioning, to demonstrate that the main has not been damaged and is in a fit condition to be charged with gas and handed over to Ausnet Services. This would involve installing pressure gauges on the gas mains after they have been laid, which provides a mechanism to identify if the gas mains are inadvertently damaged during subsequent construction works.

The gas mains would only be charged with gas late in the construction sequence of the stage, to limit any risk to the contractor's employees.

Ausnet services would have the ability to delay their consent to the issuing of a Statement of Compliance if the gas mains have not been handed over in a satisfactory condition.

In addition, commercial agreements between Ausnet and the gas contractor may need to be altered to allow appropriate payments to be made once gas mains are laid.

We welcome the opportunity to discuss this matter with you urgently, and to reaching an agreed solution.

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APPENDIX 1 – CASE STUDY

Case Study 1 – Atherstone – 2019

In the 2019 calendar year Lendlease titled 977 residential lots at their Atherstone development, and this involved 21 different stages of development. This was achieved by having up to 12 stages being constructed at the same time, in different phases of construction.

If the Ausnet policy was enforced at that time, that would have resulted in:

- Four stages only being titled during the year (approximately 200 lots)
- A huge imbalance in relation to supply and demand in the housing market. In this example, 777 house purchasers would have been delayed from housing commencement
- This would translate to a huge impact to the financial results for the developer (in the order of $218M worth of settlements)
- The impact to the State Government in relation to reduction in Stamp Duty receipts would have been in the order of $6M.
- 777 house constructions would have been delayed, which could potentially have impacted the employment of 1800 construction workers. If you consider the indirect jobs from all other industries that flow from house construction, the potential loss of jobs resulting from the delays would be in the order of 5800.

It is also worth noting that large housing developments typically make up at least 40% of sales in the Melbourne and Geelong growth areas, it would be reasonable to extrapolate these costs and loss of employment across all of the housing estates that fall within the Ausnet services distribution area, and this would result in significant additional costs and loss of employment across these estates.

Case Study 1 – Assumptions

The following assumptions were made in the above example:

Average lot - land value	$280,000
Contract settlement date	31/12/2019
Number of lots delayed	777
Percentage of first home buyers	25%
Number of lots where stamp duty is payable	583
Stamp duty payable per property	$10,370
Total stamp duty delayed	$6,045,710
Land value	$280,000
House value	$270,000
House and land value	$550,000
Civil construction cost - per lot	$60,000
Delayed construction cost - house construction	$209,790,000
Delayed civil construction cost	$46,620,000
Total cost of delayed construction	$256,410,000
Cost to support 1 (direct) full-time construction job	$137,000
Loss in direct full-time construction employment from delays	1872 direct jobs
Employment multiplier effect (indirect jobs created by 1 direct full-time construction job)	3.1 indirect jobs
Loss of indirect full-time employment from delays (all other industries)	5,824 indirect jobs

APPENDIX 2 – FINANCIAL MODELLING

Financial modelling has been undertaken to show the impact on the developer's financial results of a typical residential development project. The following scenarios have been modelled using 60 lot stages of development:

- Scenario 1 - 600 Lots (10 Stages)
- Scenario 2 - 1,200 Lots (20 Stages)

The assumptions used in the modelling include the following:

Item	Value	Comment
Revenue	$300,000	per lot
GST	9.09%	revenue
Land acquisition	80,000	per lot
Stamp duty	5.5%	acquisition price
Transaction costs	$200,000	project cost
Holding	2.7%	land value
Finance	3%	100% funding
Design & approvals	$10,000	per lot
Authorities	$50,000	per lot
Construction	$60,000	per lot
Marketing & selling	6%	percent of revenue

The key aspect of financial management that have been modelled are the margin and IRR (Internal Rate of Return), and these are summarised in the two tables below. In the tables below, the key financial indicators which would not be tolerable for developers are highlighted in the red cells, with undesirable performance highlighted in orange.

Project Size	Project Margin - Normal Construction Flow	Project Margin - Two Stages at a time	Variance
600 Lots (10 Stages)	$25,327,727	$23,306,276	$2,021,451
1,200 Lots (20 Stages)	$48,941,664	$38,822,612	$10,119,052

Table 1 – *Project Margin comparison*

	IRR - Normal Construction Flow	IRR - Two Stages at a time	Variance
600 Lots (10 Stages)	31.30%	18.58%	12.72%
1,200 Lots (20 Stages)	23.93%	10.47%	13.46%
Acceptable IRR	15% – 20%	15% – 20%	

Table 2 – *Impact on IRR*