

STATES OF JERSEY



NATURAL GAS PIPELINE: STRATEGIC STUDY

**Lodged au Greffe on 29th January 2009
by Deputy P.V.F. Le Claire of St. Helier**

STATES GREFFE

PROPOSITION

THE STATES are asked to decide whether they are of opinion –

- (a) to request the Minister for Planning and Environment to –
 - (i) commission a strategic study into the full benefits of providing Jersey with a natural gas pipeline; and
 - (ii) consider and lodge for debate recommendations based on the findings of the study within 12 months of this proposition being adopted;
- (b) to request the Minister for Treasury and Resources to identify funding to carry out this study and, if this sum cannot be identified through the reprioritisation of existing heads of expenditure or year-end balances, to request the Minister to bring forward a request under Article 11(8) of the Public Finances (Jersey) Law 2005 for the necessary additional funding to meet the cost of these payments.

DEPUTY P.V.F. LE CLAIRE OF ST. HELIER

REPORT

POTENTIAL ADDITIONAL BENEFITS OF PROVIDING JERSEY WITH A NATURAL GAS PIPELINE

Executive Summary

It is proposed to undertake an additional study into providing natural gas for the Island of Jersey in order to identify and quantify additional benefits that were not taken into account in the States of Jersey Pöyry Report drafted in January 2007: additional benefits include:

- The opportunity for better use of land in St. Helier; both at Tunnell Street and La Collette, St. Helier and at the Kosangas Jersey LPG Storage and Cylinder Filling Depot, St. John.
- The provision of natural gas to the Island, which would reduce customers' energy bills, improve security of supply and decrease reliance upon imported electricity.
- Environment benefits, reducing the Island's carbon emissions.

Note: – Copies of the draft report entitled “Economic Feasibility of Supplying Hydrocarbon Fuels to Jersey by Pipeline – draft report” dated 10th January 2007 prepared by Pöyry Energy Consulting for the Minister for Planning and Environment are available in the States Assembly Information Centre or are available electronically at www.gov.je/states reports.

Background

It is recognised that the States of Jersey has considered the importation of hydrocarbon fuels to Jersey by pipeline. The study was performed by consultants Pöyry, a report was drafted in January 2007 entitled “Economic feasibility of supplying hydrocarbon fuels to Jersey by pipeline”. The report calculated the costs of providing such pipeline facilities and balanced these against some of the more obvious benefits. However, I believe that there are significant advantages and incentives that were not taken into account in the study as they are not directly linked and/or are smeared across a variety of stakeholders; various States of Jersey departments (Planning, Environment, Economic Development, Health and Safety, etc.), Jersey Gas and the Jersey public at large. Also I believe that the cost of the project to the States of Jersey could be reduced if other joint lay and project sharing opportunities were considered.

I therefore call for the States of Jersey to fully investigate all of the advantages and incentives for the importation of hydrocarbon fuels to Jersey by pipeline, and in particular a natural gas pipeline. I also call for the States of Jersey to investigate other potential projects and initiatives that could run concurrently with a pipeline project. I believe some of the following benefits could be realised.

1 Land use and planning

Jersey Gas and Kosangas Jersey Managing Director, Paul Garlick, has confirmed to me that the provision of a natural gas pipeline would negate the need for Jersey Gas and Kosangas Jersey to occupy a number of parcels of land in Jersey as detailed.

Jersey Gas gas-holder site at Tunnell Street, St. Helier. Jersey Gas would no longer need the gas-holder or the land on which it is sited at Tunnell Street, St. Helier. This land, approximately 1,700 m², is currently owned by Jersey Gas.

Jersey Gas offices, stores, showroom and associated parking facilities at Tunnell Street, St. Helier. Jersey Gas would no longer need these facilities at this location. Smaller accommodation could be found elsewhere on the Island. This land, approximately 5,800 m², is currently owned by Jersey Gas.

Jersey Gas LPG storage facility, gas production plant and associated buildings at La Collette, St. Helier Jersey Gas would no longer need any of these facilities. The land, approximately 9,500 m², on which these facilities are placed, is leased from the States of Jersey under a 99 year lease, signed in 1978.

Kosangas Jersey LPG storage and cylinder filling plant at St. John. Jersey Gas would no longer need this facility. A small parcel of land anywhere on the Island would be required to store filled LPG cylinders that would be imported direct from Guernsey, France or the UK. Jersey Gas lease this site, approximately 3,900 m², from a private landlord, lease expires on 2019.

Thus a natural gas pipeline would present various land use planning opportunities, some are outlined below.

1.1 St. Helier car parking

The need to build a car park at Anne Court could be negated by maintaining Minden Place car park and providing an additional car park facility on the Jersey Gas gas-holder site at Tunnell Street, together with an appraisal of the empty land currently opposite Grand Marché, which could also facilitate a multi-storey car park on the ring-road in short order.

Advantages of this scheme are –

The Jersey Gas-holder site at Tunnell Street is better suited to a car park development, being situated directly on the ring-road. Road access to this site could be enhanced by negotiation with Jersey Gas to acquire the 4 terraced houses located between the gasholder site and St. Saviour's Road.

The Minden Place car park is viewed as promoting town centre shopping. In order to maintain a vibrant town centre it is important to provide such facilities. Town centre retailers face a number of challenges at this moment in time, competition from out of town retailing, the economic downturn and GST. It is felt that the removal of the Minden Place car park would merely add to these problems.

The Minden Place car park facility is still fit for purpose, by keeping it operational the States of Jersey will avoid the cost and inconvenience of demolition.

1.2 Housing – Anne Court site

As outlined in 1.1, a solution is provided that would negate the need to provide car parking on the Anne Court site, thus allowing the site to be developed for much-needed housing as outlined in Deputy Martin's proposal ([P.184/2008 – Ann Court Site, St. Helier: use for sheltered social housing for the over55s](#)).

There may be other opportunities generated for housing, see items 1.4 and 1.5.

1.3 St. Helier Town Park

The potential release of Jersey Gas land at the Tunnell Street site (gas-holder, offices, stores, showroom and associated parking) would provide a greater scope for the St. Helier Town Park development.

There would a potential to use the Jersey Gas offices as a community centre, delivering a wet and dry facility for the town park.

1.4 La Collette Site

Removal of the Jersey Gas facility at La Collette would release land for alternative use. Possibilities

include –

- A new sewerage treatment facility.
- Other industrial/commercial activities.

The removal of the Jersey Gas LPG storage facility would also reduce the land use/planning restrictions around the whole of La Collette area. These restrictions apply for a significant distance around the fuel installations. If the potential hazards posed by the LPG facility and the neighbouring liquid fuel farm could be eliminated or reduced, the redevelopment opportunities for the sites and La Collette as a whole are significant. Possible examples –

- New port facilities. Possibly including facilities for the importation of aggregates as outlined in the mineral strategy. Possible facilities to receive cruise liners.
- Housing development.
- New or extended marina facilities.

The provision of a natural gas pipeline and subsequent retirement of the Jersey Gas facilities at La Collette could negate the potential cost of re-siting Jersey Gas' facilities at some point in the future. The scenario of moving the Jersey Gas' facilities in the future is real, given the development restrictions resulting from the potential hazards presented by the site and the ongoing reclamation. Jersey Gas' rough estimate as to the potential cost of moving their La Collette facilities are +£18 million at present-day costs. Given the length of the Jersey Gas lease for the site it is likely that a significant portion, if not all, of the costs of moving the LPG storage and gas production facilities could fall to the States of Jersey.

1.5 St John's LPG storage site

This site is again potentially hazardous and as such may not be compatible with future development and/or potential plans for the site. If Kosangas Jersey vacated this site early, the private landlord and the States of Jersey could develop more useful schemes for the site: for example – alternative industrial, commercial and/or retail use or for Housing.

2 Economic and development

2.1 Natural gas costs

Natural gas delivered by pipeline would offer Jersey a lower cost fuel. Natural gas would have a price advantage over the current gas supply (LPG/Air) and electricity. Natural gas is likely to be a similar price to heating oil. This is demonstrated in the Isle of Man. As a result there would be an economic gain for the Island which could be used in various ways, for example –

- The States of Jersey could take some or all of this cost advantage in full or for a period of time in order to ensure the pipeline project became economically viable, and/or to spend on other essential projects/initiatives.
- The States of Jersey could ensure that this cost advantage is passed on to, or shared with, the Jersey public and businesses.

2.2 Hedge against imported electricity costs

As in the Isle of Man, natural gas could be used as a feedstock for power generation, or simply used as a hedge. As such, the provision of natural gas would act to protect against imported electricity costs.

2.3 Provision and cost of gas appliances

Currently, customers and businesses in Jersey who wish to use mains gas have limited access to gas appliances. Manufacturers do not make appliances that operate on the current LPG Air mains gas mixture supplied by Jersey Gas. Appliances must be converted to work on the LPG Air mixture, this adds to the cost of the appliances and limits the range of appliances available to customers. If natural gas were provided to the Island, customers and businesses could source standard gas appliances from the UK or Europe directly without the need to convert. Thus customers and businesses in Jersey would have access to a wider range of appliances at a lower cost.

3 Energy Policy issues

3.1 Diversity of energy supply

Obviously the introduction of natural gas would add to the diversity of the energy mix on the Island. As alluded to above in items 2.1, 2.2 and 2.3, natural gas would be a significant advantage to the Island's energy mix.

3.2 Security of supply

A natural gas pipeline provides a higher level of security of supply than the shipment of LPG. A natural gas pipeline is also a more reliable means of providing a supply of gas than the current Jersey Gas production plant and gas-holder facility. Whilst people will be aware of the current dispute between Russia's Gazprom and the Ukraine, one should not be distracted by this short-term situation. Europe will respond to these problems in the short term and reduce dependence on Russian gas or mitigate against such action. Proven natural gas reserves are sufficient to meet demand for about the next 60 years and there are estimates that further reserves exist that will last for circa 200 years. This is significantly beyond the estimates made for peak oil.

As stated in item 2.2, natural gas could be used as a feedstock for power generation, thereby adding to Jersey's diversity and security of electricity supply.

The vulnerability of importing other liquid fuels to the Channel Islands was highlighted by experiences in Guernsey in 2008. The Island suffered interruptions in shipping liquid fuels that led to extremely low on Island inventories that forced the oil companies to introduce demand-calming measures. Later in the year, December 2008, the States of Guernsey were forced into a position of purchasing 2 ships to ensure the supply of liquid fuel to Guernsey (cost declared at 17 million Euros).

3.3 Securing an affordable energy supply/fuel poverty

As highlighted in item 2.1, natural gas would have a price advantage over the current LPG Air mains gas neat LPG, electricity and in a number of applications, heating oil.

Also, as stated in item 2.2, the provision of a natural gas pipeline could be used as a hedge against imported electricity prices.

3.4 Carbon abatement/use of low carbon intensity fuels

Whilst the view expressed by the States of Jersey Energy Policy Consultation Paper issued September 2007 is that imported electricity is of a very low carbon content, circa 0.056 kg. of CO₂/kWh., this is being challenged. Jersey Gas, a number of independent consultants and several informed politicians are of the opinion that nominating a figure of 0.056 kg. of CO₂/kWh. or thereabout for imported electricity is

inappropriate for the Energy Policy. Opponents of this carbon intensity figure would argue that it does not reflect how the European grid will react to a change in demand, with the sentiment of the Jersey Energy policy consultation document, an increase in demand.

It is not robust, consistent, or predictable, i.e. the carbon intensity figure for imported electricity could be subject to significant changes. For example, if the JEC cannot agree terms with EDF, or EDF merges with another supplier, etc.

Nor does it align with the calculation methods and assumptions employed in other jurisdictions.

It will not deliver strategies and outcomes that will reduce carbon dioxide emissions.

The opponents of this aspect of the Energy Policy suggest that Jersey should assign an EU 25 average carbon intensity to electricity imports, that would be circa 0.4 kg. of CO₂/kWh. The carbon intensity of natural gas is 0.185 kg. of CO₂/kWh., this is less than LPG at 0.214 kg. of CO₂/kWh. and heating oil at 0.252 kg. of CO₂/kWh. (figures taken from UK Carbon Trust Fact Sheet CTL018). Hence, a move to natural gas will reduce the Island's carbon footprint, even if one accepts the Energy Policy view of imported electricity. If one considers that imported electricity should be assigned a carbon intensity of 0.4 kg. of CO₂/kWh. then natural gas presents further carbon reduction opportunities for the Island. Also, generation of electricity with a modern natural gas CCGT plant would enable Jersey to generate electricity on-Island at comparable carbon intensity to the EU 25 average generation, i.e. additional security of supply and imported electricity cost hedging could be attained without an increase in world carbon emissions.

3.4.1 Other potential environmental benefits – current technology - Biogas (Bio methane)

The introduction of natural gas to Jersey will enable biogas (bio-methane) options to be developed. Bio-gas, predominantly methane, arising from the anaerobic conversion of organic matter, is currently being promoted in Europe. The most simple and cost-effective model is to inject this gas into natural gas systems (natural gas being predominately methane). Such technology is deemed to be carbon-negative, as unless the methane from the organic matter is collected, it is likely to escape to the atmosphere as the organic matter rots. Methane is 21 times as potent a greenhouse gas as carbon dioxide. Hence, if one can collect the methane and burn it, converting it to CO₂ and gaining energy, one can gain a significant greenhouse gas reduction.

A barrier to development of bio-gas (bio-methane) in Jersey is the potential use for the gas. Bio-gas cannot be used in the current Jersey Gas mains network as it is not compatible with the LPG Air mixture. If Jersey were to convert to natural gas, then bio-gas could be used in the mains gas system.

3.4.2 Other potential environmental benefits – potential future technology – Hydrogen supply

In the future the natural gas pipeline could be used as a source of hydrogen for the Island. There are technologies emerging whereby natural gas is processed to remove the carbon, the carbon is then sequestered and stored, the remaining hydrogen is then used as a feedstock for power generation. The resulting emissions from hydrogen-fuelled power generation being water vapour (no carbon dioxide). Whilst this technology could be seen as being a number of years away, it could offer a second generation use for a natural gas pipeline.

3.5 Energy Policy promotion of electricity – possible withdrawal of competing fuels

If the Energy Policy proactively promotes the use of electricity for heating, it could lead to the premature withdrawal of other product(s) from the Jersey Energy Market in the short term. The potential cost of such action would be significant. There are 2 likely options for the States of Jersey, to support the non-electric failing energy businesses or to fast-track the migration to electricity. There are significant costs with both: with regard to the latter there would be costs arising from the need to significantly improve and

reinforce the electricity supply infrastructure. There would also be significant costs carried by customers and businesses as a result of increasing heating bills (gas, heating oil and coal all having a price advantage over electricity). Customers and businesses would be forced to change appliances at their cost. There would be significant disruption in terms of road works to facilitate the electricity network improvements. There would also be disruption in people's homes as they were forced to change appliances. In addition to these costs and disruptions the Island would become almost completely reliant upon electricity imports from Europe, reducing diversity, security of supply and exposing the Island to the risk of imported electricity costs.

The cost and effect of the above should be considered in terms of quantity of carbon abated, particularly given the challenge to the low carbon intensity assigned to imported electricity. A similar cost benefit analysis should be considered for the provision of a natural gas pipeline. Natural gas will yield carbon reductions without risking security of supply and undermining diversity of the Island's energy supply.

4 Hazard / risk reduction

The following Jersey Gas facilities are hazardous and do present a risk –

- The LPG storage and gas production plant at La Collette.
- The LPG storage and cylinder-filling facility at St. John.
- The gas-holder at the Tunnell Street site, St. Helier.

In terms of level of hazard, the La Collette site is the most significant, the site at St. John is a lower level of hazard and the gas-holder at Tunnell Street is lower still.

Jersey Gas claim to be a responsible operator who adopt UK/Best Industry practice in order to minimize the level of risk. However, the accepted approach to the management of risk is to, wherever possible – (a) eliminate, (b) reduce, (c) isolate and (d) control. These objectives should be cost justified. If one does not take into account the wider advantages or incentives accrued by the Island it would not be economically justified for Jersey Gas to eliminate, reduce or isolate these facilities by providing a natural gas pipeline. However, if some of these wider advantages can be realized, one could argue that from a States of Jersey perspective, the elimination of the facilities may become cost-justified. If the sites were eliminated, planning restrictions on the land around them would be removed. The biggest gain here would be for the La Collette site, this impact could be significantly improved if the risk presented by the fuel depot could be reduced or eliminated (see item 1.4).

The current Jersey Gas facilities would be replaced by an incoming high pressure natural gas pipeline. There are risks associated with such a pipeline, however, the risks are significantly less. The risks are reduced further still as, as soon as the pipeline is landed, the operating pressure would be reduced.

5 Other potential pipeline projects and initiatives

There are various other potential projects and initiatives that could run concurrently with the laying of a natural gas pipeline in order to accrue further benefits or reduce the cost of the project. Some suggestions follow.

5.1 Share the natural gas pipeline facility

As alluded to earlier, the natural gas pipeline could be used as a source of fuel for JEC on-Island power generation. Also, there may be cost advantages by promoting natural gas connections to other Channel Islands, most likely the only economically viable case being Guernsey. In turn, the project could consider the provision of natural gas to GEL for on-Island power generation. This would provide GEL with a

potentially cheaper fuel source with a lower carbon intensity (GEL currently use fuel oil).

5.2 Joint lay with a liquid hydrocarbon pipeline

As highlighted in the Pöyry report, January 2007, there would be significant cost advantages of joint laying a natural gas pipeline with a liquid hydrocarbon pipeline. A liquid hydrocarbon pipeline could significantly reduce the inventory of liquid fuels on the La Collette fuel farm and improve security of supply by reducing or eliminating hydrocarbon fuel shipments. As highlighted in item 1.4, such an initiative may be instrumental to allowing radical redevelopment of the La Collette area.

Again, as per 5.1, such a scheme should be attractive to the States of Guernsey. Guernsey have similar demands made upon their limited land resource, Guernsey adopt similar land use planning restrictions around the fuel farm and LPG storage depot and, as highlighted in item 3.2, have had more acute security of supply issues with regard to the delivery of hydrocarbons to the Island given the significant restrictions of St. Sampson's Harbour.

5.3 Joint lay with liquid waste pipeline

Another potential allied project would be to lay a liquid waste pipeline between Jersey and France in order to export liquid waste from Jersey. Such a pipeline, if feasible, could mitigate the need for significant capital expenditure in on-Island liquid waste treatment facilities, estimated to be in the order of £35 million.

6 Jersey Gas Comments with regard to this Proposal

I spoke with the Managing Director of Jersey Gas, Paul Garlick, about this proposal. I was given assurances from Mr. Paul Garlick, the MD, that the owners of Jersey Gas would be willing to enter into discussions with regard to a natural gas pipeline option, as laid out in these proposals.

It is unlikely, given the current economic climate and Jersey Gas' perception of the political and regulatory environment in the Channel Islands, that the parent company would be willing to invest in a natural gas pipeline. Hence Jersey Gas believe that the pipeline should be financed by others, most likely the States of Jersey. However, Jersey Gas do foresee that the States of Jersey would need to ensure that any investment was used for the benefit of the Island and the public. Hence if Jersey Gas were to benefit from a natural gas supply from a States of Jersey funded asset it would, in principle, be prepared to consider full economic regulation of its business.

7 Natural gas pipeline – possible business models

The States of Jersey Pöyry Report costings for a natural gas pipeline to Jersey were included in the Energy Policy Consultation Paper, table 27 page 224. Costings for the base case scenario ranged between £15 million and £29 million, the financial analysis suggested the project was £3 million to £17 million in deficit. However, as I have stated, I believe there were various significant benefits that were not included in the project appraisal. There are also other revenue-earning opportunities that the States of Jersey could adopt to reduce the financial risk of this project. For example, in the Isle of Man natural gas, due to the lower cost, has been retailed on average circa 2p/kWh. less than LPG, Jersey Gas sell approximately 120 million kWh. of gas per year. If there is a shortfall in incentives for the project, the States of Jersey could take an income, in order to make the project viable, delaying the pass through of natural gas savings to customers. The above calculation indicates that there could be a revenue stream of approximately £2.5 million per year if gas tariffs on Jersey were maintained at their current levels.

Business Models available in the event that the States of Jersey funded a natural gas pipeline project –

- States of Jersey to own and operate the pipeline and sell gas to Jersey Gas. Jersey Gas continue to operate the on-Island network, delivering gas to customers. Jersey Gas network operations

being undertaken under full economic regulation.

- States of Jersey to own the pipeline and allow another company (JEC, JG, Gaz de France, for example) to operate the pipeline and sell gas to Jersey Gas. The pipeline operators would pay the States of Jersey a licence to operate and would be regulated. Jersey Gas continue to operate the on-Island network, delivering gas to customers. Jersey Gas network operations being undertaken under full economic regulation.
- The States of Jersey to acquire Jersey Gas and have full ownership of the gas delivery system from Europe to the Jersey customer. The States of Jersey could then allow another company to operate these assets under a licence and full economic regulation. A variation on this option could be to allow JEC to operate these assets, given the synergy benefits this should produce an efficient business model.

There are various other business models.

IEG, the parent organisation of Jersey Gas, also own Manx Gas. A natural gas connection to the Isle of Man was made in 2003, the project was lead by Manx Electricity Authority. They own and operate the natural gas pipeline and sell gas to Manx Gas. Natural gas is used for power generation as well as being supplied as a fuel for heating, cooking, catering, CHP, etc. At the moment natural gas is only available to the town of Douglas; Manx Gas, like Jersey Gas, supply LPG and LPG/Air to other towns on the Isle of Man. Such is the popularity of natural gas, the Manx Government are now considering a project of delivering natural gas to other towns.

Manx Gas are prepared to arrange a visit for interested parties to visit the Isle of Man to discuss their experiences with natural gas.

The project is recommendable in my view because, amongst other benefits –

- It provides the opportunity for better use of land in St. Helier; both at Tunnell Street, Anne Court, St. John and La Collette;
- It would bring natural gas to the Island, which would reduce energy costs, improve security of supply, and reduce risk; and it would contribute to improving the environment. Moreover the cost of the pipeline could be financed mainly from the land released.

8 Possible Terms of Reference for the Proposed Investigation

The Minister may like to consider proposing terms of reference for the research report. If it is in any way helpful, these could include the following –

- to examine, on an Island-wide basis, the expected costs and benefits of installing a natural gas pipeline from France;
- to report on the expected environmental impacts of making natural gas available in Jersey;
- to report on the land that would be released from terminating LPG importation, storage and processing in Jersey;
- to consider the potential for cost savings from co-coordinating this project with the liquid waste project; and
- if the report recommends proceeding with a natural gas pipeline, to recommend a project

structure, to outline the likely timetable, and to set out the next steps with an associated budget.

- Discuss with other Channel Islands the potential for a joint project.

I think the Research Report could be completed in about 6 months or less. There may be some benefit in having Jersey Gas and Jersey Electricity as ex-officio members of the project team. A series of interim reports could be tabled with accompanying propositions.

Placing all of our eggs in one basket

In a letter to the Jersey Evening Post on 9th January 2009, Chris Ambler, the Chief Executive of JEC, spoke of the future cost for investing in electricity over the next 10 years, by this supplier. He clearly spelt out that it was to be in excess of £100 million. This is a company whose ownership is largely held by the public through the States of Jersey. If it is right for the States to forgo the likely dividends it might have received, because of the need to invest for the future in electricity, then why are we not also investing in a natural gas pipeline and oil fuel pipeline? This would deliver a much broader mix of suppliers and help to keep costs down for consumers and the States themselves.

In the same letter, Mr. Ambler warned that the recent 24% increases could have been as high as 36%.

Is this possible scenario acceptable in the future?

Financial and manpower implications

The report I believe would be relatively inexpensive. It would probably be achievable within a budget of £50,000.00 or less. I believe it could be completed within 6 months. Much of the research could be conducted by the States themselves with Jersey Gas and JEC co-opted on, as I have said. I am certain that the savings implied from my initial investigations could run into many millions of pounds. This work could be delivered in parts. Early reports and negotiations could deliver a series of quick wins for all concerned. The MD of Jersey Gas has offered assistance to the States, to facilitate fact-finding trips to Guernsey and the Isle of Man, should this proposition be successful.

Note: Maps of the key sites referred to in this Report are shown at the attached Appendix.

ANNEX OF PROPOSALS

The Study

A high level strategic study into extending a natural gas pipeline to Jersey would identify whether some, or all, of the following initiatives could be achieved, or would be expected to occur.

1. A reduction in CO² emissions, which would help to mitigate the effects of global warming.
2. Improved security of energy supply (a natural gas pipeline is significantly more reliable than LPG and liquid fuels shipping. A natural gas pipeline is more reliable than the gas production plant and gas-holder facilities currently serving Jersey). There are 2 things to consider. The first thing is the risk to the offshore pipeline and what happens if it is hit. Although pipelines are clearly marked on marine charts they do get hit from time to time. They can be pulled by an anchor or damaged by fishing equipment, etc. If an offshore pipeline is damaged it can be a problem, but it is a very small insurable risk. Everyone will be aware of the disruption to gas supplies to Europe caused by the recent dispute between Gazprom and Ukraine. There is a need to be assured that the natural gas supply would be secure. France has a contingency storage to cover any loss, and Britain is to mine the sea-bed to store gas in the future. These measures assure and will assure respectively, continuity of supply. If the project proceeds it may be possible for the Channel Islands to buy into the reserves in France and elsewhere to cover this eventuality. Reserves of gas are greater than those of oil. The 'peak oil' concern that contributed to driving up oil prices does not apply to natural gas. Proven natural gas reserves are sufficient to meet demand for about the next 60 years and estimated remaining reserves for about 200 years. This compares to oil, where proven reserves are sufficient for 30 years.
3. Allow for supply of natural gas to be extended from France to Jersey and on to other Channel Islands.
4. A natural gas pipeline could provide a source of hydrocarbon for electricity generation on-Island. This would act as a hedge against imported electricity prices. The current approach from the Channel Islands Governments leaves them vulnerable to imported electricity prices. Not only must they import electricity, in order to claim a low carbon footprint (which in global terms is challengeable), but they must buy from one electricity supplier, EDF.
5. The added potential to lay a dual or triple pipeline from France, to carry gas and oils into Jersey and onwards to other Channel Islands. The possibility of laying several pipes would have to be considered carefully; however there would be some savings in co-ordinating the planning and negotiating routes. There is also a saving in the mobilisation cost of offshore contractors and equipment. I am informed that the gas pipe would be 'relatively small', e.g. .200 mm. in diameter. My understanding is that this can be welded and coiled onshore, before being put on the lay-barge. It is then rolled out into the sea in one continuous length. If the liquid waste pipe was any larger, then it would have to be welded in straight lengths, which would use different offshore equipment. Moreover, when one looks for landing points on the Island and in France, local existing infrastructure may suggest different landing points. There may be benefit in examining each pipe option separately, but to oblige the teams to work together to see if there is scope to minimise costs. Otherwise, there is a potential risk that the scope gets so wide, that it is difficult to 'get one's arms around'.
- 5.
6. Increased diversity of energy supply which adds to choice and security of supply.
7. Investigation of the potential to pump liquid waste from Jersey to treatment facilities in France or elsewhere in Europe. Mitigating the need for capital expenditure in this area, estimated to be around £35 million+ (see points made at paragraph 5 of Report).
8. The acquisition of the gas-holder site, car park and main building. The removal of the gas-holder would provide a greater sized space for developing a new multi-storey car park. If the States are looking for better access to this site, Jersey Gas owns the 4 terraced houses between St. Saviour's Road and the gas-

holder. I am reliably informed that Jersey Gas would be prepared to look at options for swapping or selling these properties, which are currently rented to employees of Jersey Gas.

9. The removal of all Jersey Gas facilities at La Colette. This includes LPG tanks, office, buildings and gas production plant. This would free the site for more suitable development or use.

9.

9. The acquisition of the site would also allow for these additional proposals:

10. Allow for the removal of the large gas-holder at Gas Place.

11. Allow for the construction of a large multi-storey car park on the north end of the Jersey Gas site. Unlike Anne Court, this would be on the ring-road.

12. Build a new multi-story car park on the vacant land opposite Grand Marché and later another, on the gas-holder site, if necessary. Housing planned for this land can be built on Anne Court, together with any other housing desired, and negate the need to build a car park at Anne Court. This will reduce pressure to build in the countryside.

13. Retention of Anne Court as a much-needed housing site for the Island's residents, as outlined in Deputy Martin's proposals.

14. Retain Minden Place car park, helping town centre shopping. Shopping today is an increasingly challenging issue. With the pressure on retailers at an all-time high, the last thing businesses need is for the States to introduce disincentives to shopping in town and reduce their customer base.

15. The retention of Minden Place car park will also reduce costs associated with its demolition and extend the life of the La Collette reclamation site.

16. Allow for a much larger area of land to be used to achieve the town park. Meeting all expectations of Islanders and visitors alike. With the early build of a new multi-story car park on the ring-road, there is much greater scope for the Town Park development. The difference with this proposal and the one at Anne Court is that these parking facilities would be on the ring-road.

17. Create a new community centre on the town park. Achieved by changing the current use of the Jersey Gas building, which would no longer be required by the company. This would deliver a wet and dry facility for the town park.

18. Removal of any associated risk from Jersey Gas operations at St. John, Gas Place and La Collette.

19. Removal of the LPG storage tanks and gas production plant facility [currently rented by Jersey Gas from the States of Jersey] at La Collette.

20. Free up the Jersey Gas footprint at La Collette to provide for other strategic purposes, such as new port facilities, marina or housing developments.

21. Removal of the LPG storage and gas production plant facility will improve sea access to Jersey. This would allow for the possible importation of aggregates, as outlined in the Mineral Strategy.

22. Replacement of LPG storage and gas production plant facility, to allow for a new sewerage facility on site.

23. Develop and lay in tandem to the natural gas pipeline, a pipeline to pump sewerage for treatment to mainland Europe, helping to rationalize costs and long-term capital expenditure for basic infrastructure. If this could be achieved it may reduce the liquid waste strategy costs.

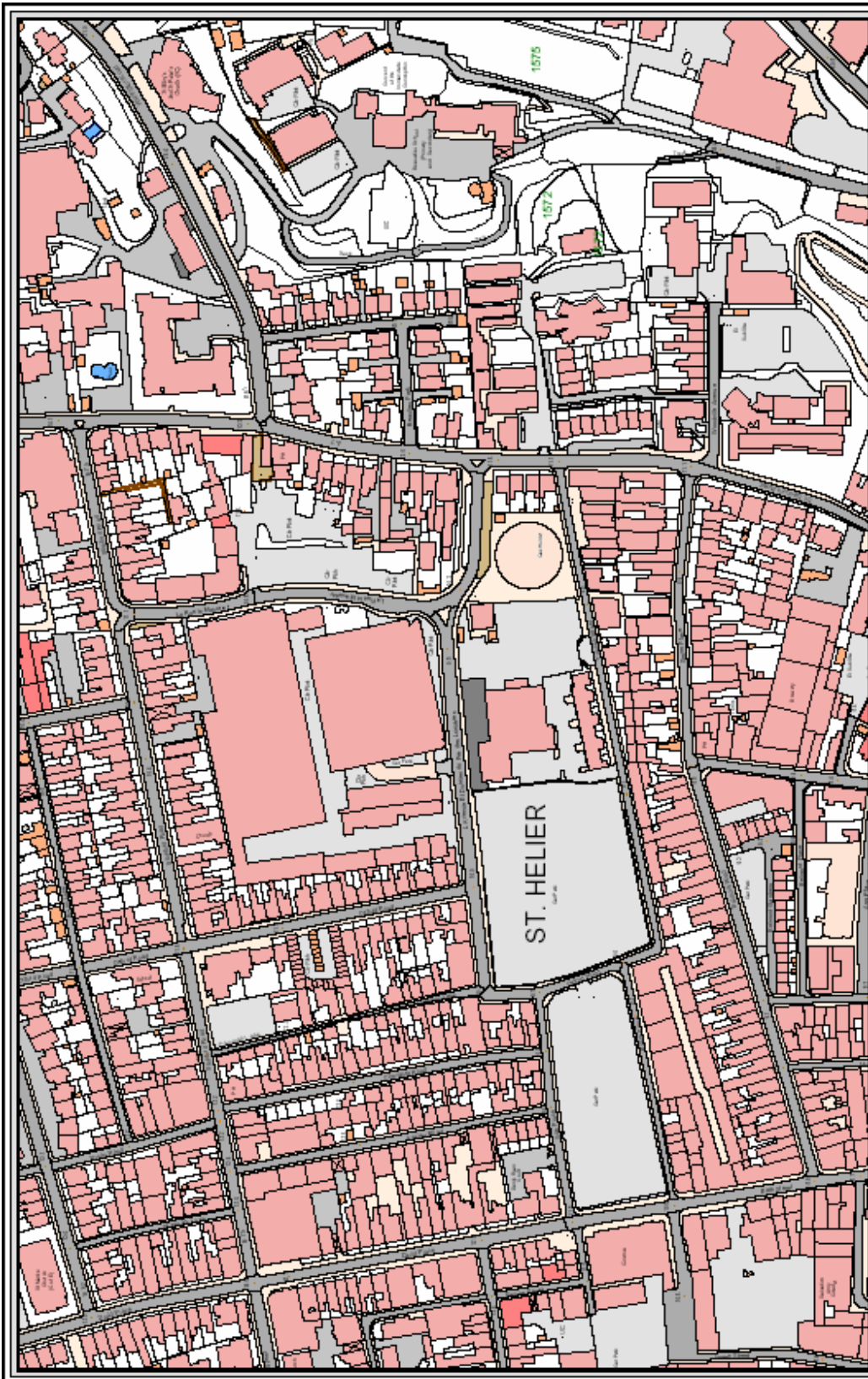
24. Removal of significant and sizable hazardous sites and facilities for Islanders. The natural gas pipeline

will be at high pressure, hence it will be a hazard itself, but much less than the LPG site; i.e. by UK standards such pipes can be within 3 m. of properties. Essentially, what would happen is that the pipe would be landed underground, and then as soon as possible a pressure reduction station (above or below ground) would reduce the pressure, reducing the hazard to practically zero. This area of land would be as little as 200 m², i.e. 10 m. by 20 m. site, somewhere on the east coast, ideally in a rural location. Such an installation, as said, could be below ground, semi-below ground or above, which could be easily screened.

25. Reduce the cost of cooking and heating for many Islanders.
26. Increase consumer choice and access to different suppliers of gas appliances, thereby saving them money. At present, all gas appliances have to be converted to operate safely on the gas supplied by Jersey Gas. Not all modern appliances can be converted. Jersey Gas can only offer ones that can be converted. Consumers will benefit from a wider range of appliances, avoiding the cost of conversion, and be able to purchase from a wider range of suppliers.
27. Guarantee the retention of much-needed jobs and skills in this field, for all communities within the Channel Islands.
28. A high level strategic review could identify any potential issues regarding current fuel deliveries to Jersey. Possibly helping to avoid situations arising where, as in Guernsey, £17 million of shipping had to be purchased outside of normal procedures of the States, due to crisis this year.
29. The decision to commission a natural gas pipeline would mitigate the costs associated with moving the Jersey Gas facilities at the La Collette site at some point in the future. (I assume that the cost would fall to the States in this eventuality, as Jersey Gas has a very long lease for the La Collette site.) I would imagine that these costs alone would outweigh any expense incurred.
30. Better land use in several areas of the Island. A natural gas pipeline will release land in Jersey for development in many areas. It will rationalize States aims and objectives in other areas and save taxpayers money.
This would free the sites for more suitable development/use.
I think that this point is valid for all the sites.
31. Reduce pressure to build outside the town. This could mean that space could be left undeveloped in the countryside; where at present there is a growing pressure to build as we have seen recently.
32. Freed space could be used for much-needed housing, or it could be used for much-needed industry. All in all, Jersey Gas occupy a significant land footprint, it is an essential business; however a natural gas pipeline will deliver a better business, better product, low cost, lower carbon and give Jersey valuable, much-needed land back at the same time (the gas-holder site at Tunnell Street, potentially the Jersey Gas offices at Tunnell Street [both owned by Jersey Gas], the LPG storage site at St. John [currently rented by Jersey Gas from a private landlord] and the Jersey Gas La Collette LPG storage and gas production plant facility [currently rented by Jersey Gas from the States of Jersey]).
33. Investigation of the possible costs of early withdrawal of gas from the Jersey energy markets. If current thinking on energy policy is pursued, JG will get no new connections (due to the proposed building bye laws).
34. The possible adverse consequence of not retaining gas as an energy source may have serious implications in the medium term. With a States long-term objective to phase out gas over 20 years, this may as a consequence mean Jersey Gas could cease to be a viable business in as few as 5–7 years. With over 10,000 customers at present, how would these people be adequately catered for by the States, in such an eventuality?
35. Extending the supply of natural gas to Islanders would mitigate the States of Jersey, and indeed

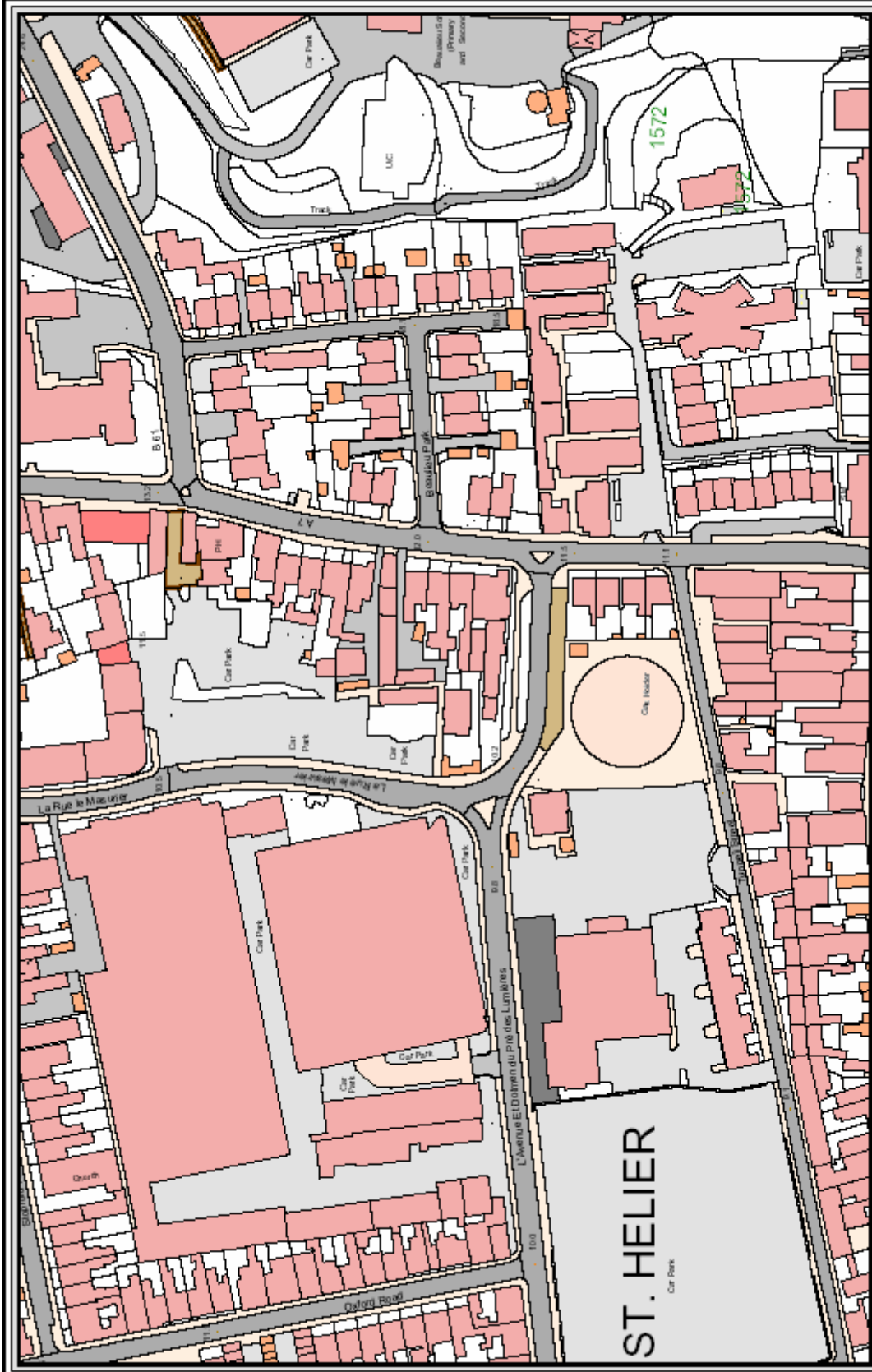
Guernsey, having to purchase a diminishing and depleting operation, to guarantee service to Islanders, at great cost to taxpayers.

MAPS OF KEY SITES

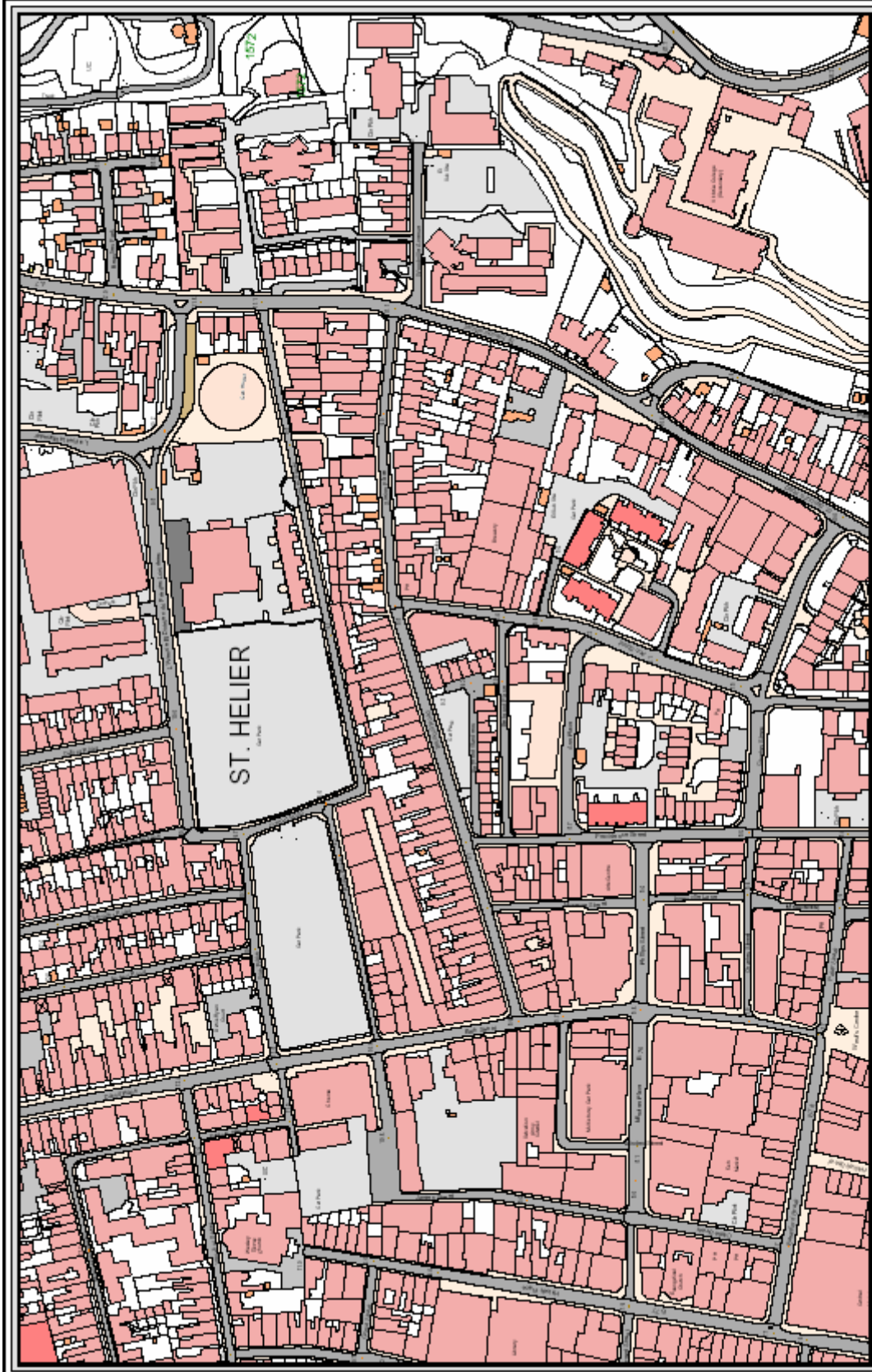


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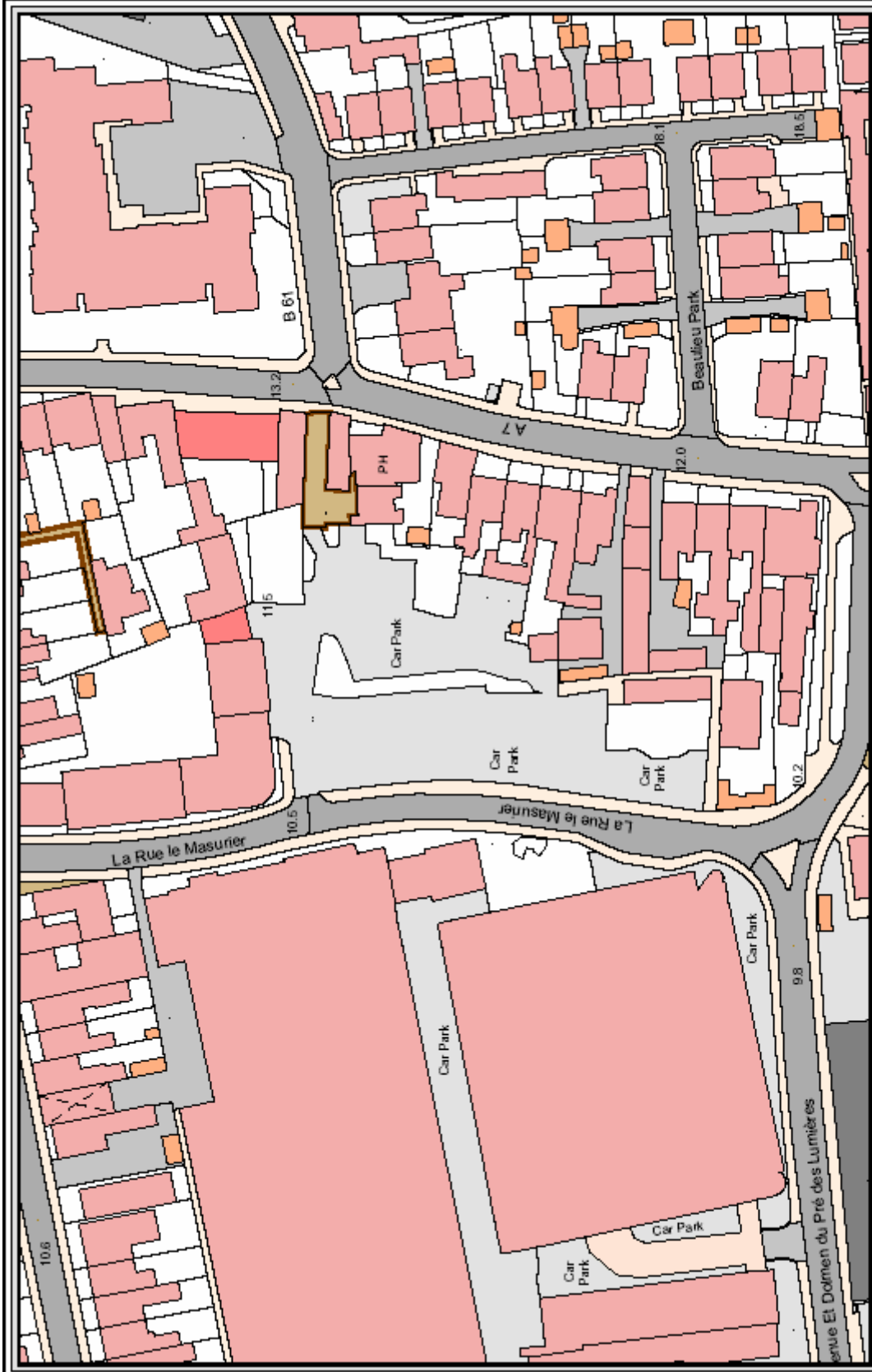
Town Park Site



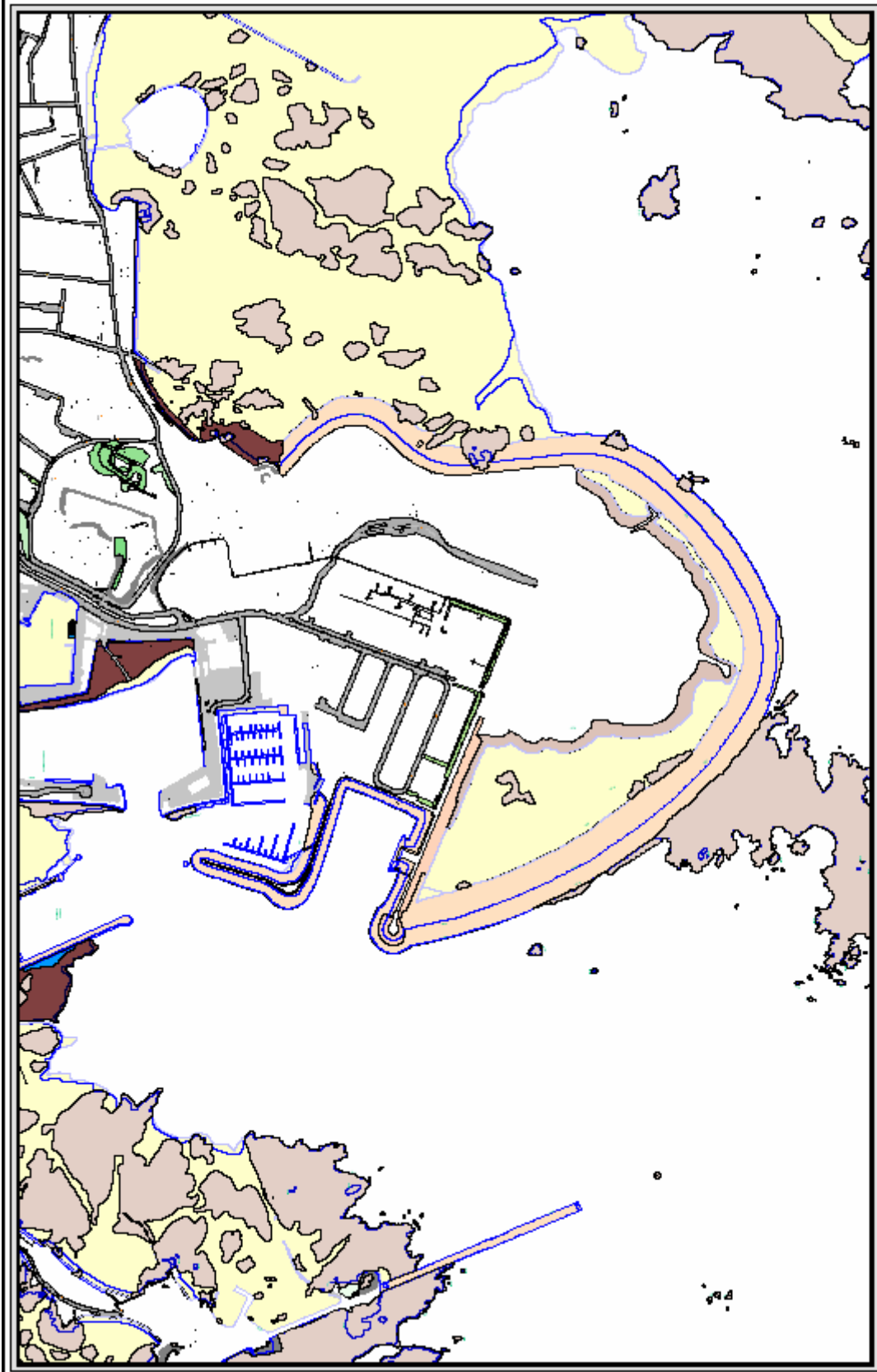
E. Grande Marche N. Gas Holder



Anne Court & Gas Place



Land opposite Grande Marche



La Collette