



Advice on Water Reform

Presentation to Kāpiti Coast District Council

Andreas Heuser, September 2021



Agenda

- **About Castalia**
- **Context and background**
- **Key question: Will the Reform Scenario deliver the promised benefits to the Kāpiti Coast community?**
- **Assessing the government's main claims**
 - Level of investment needed is overstated
 - Efficiencies in the new entity are implausible
 - Opt-Out Scenario assumes no improvements for Kāpiti Coast
- **Risks and costs to Kāpiti Coast from Reform Scenario**
- **Next steps?**

About Castalia



Castalia is a New Zealand specialist infrastructure advisory firm with global presence

Castalia is a global strategic advisory firm headquartered in New Zealand with offices in Wellington, Auckland, Sydney, Paris, Bogotá and Washington, DC.

We have a global team of specialists skilled in infrastructure, economics, finance and law and environmental studies. Castalia has a 40-year history as the world's preeminent advisors on reform in the water sector. We are experts in the major institutional structures for water (French, British and US). We have worked on 354 projects in 124 countries helping to raise US\$11 billion of finance.

In New Zealand, Castalia has advised a range of local authorities and Watercare on the implications of the government's proposed three waters reforms. Castalia led advice in 2020 to LGNZ and the Three Waters Steering Committee on institutional options for reform and the existence of economies of scale in the water sector. Castalia has previously also advised Department of Internal Affairs on water sector performance.

We have worked on

354

PROJECTS IN

124

COUNTRIES

helping to raise

US\$11

BILLION OF FINANCE

Andreas Heuser, Director



Professional qualifications

LL.M in Business Law with focus on Economics (Summa Cum Laude),
University of Cologne, Germany

Bachelor of Laws and BA, Victoria
University of Wellington, New Zealand

Key areas of expertise

- New Zealand Water Sector Reform
- Institutional Design
- Infrastructure Transaction Advisory
- Economic Evaluation

Profile summary

Mr. Andreas Heuser is a Director in Castalia's Wellington office and is the immediate past President of the Law and Economics Association of New Zealand.

Andreas has deep experience in institutional design and regulatory policy. He has managed a range of infrastructure advisory projects in New Zealand, the Pacific and South-East Asia since joining Castalia. In the water sector he led advice to LGNZ evaluating all aspects of institutional options in the New Zealand Government's Three Waters reform programme. He assessed the existence of and opportunities to exploit economies of scale in New Zealand water services. He recently led a project for Ministry for the Environment (MfE) evaluating the costs and benefits of the government-appointed Panel's recommendations. He managed high-profile projects assessing economic impact of proposed freshwater regulation reforms in New Zealand for separately for MfE and LGNZ. He recently also managed a project to evaluate wastewater treatment options in Cook Islands.

Andreas was previously with New Zealand Treasury where he guided contentious policy reforms in urban planning and in funding and financing of water and roading infrastructure. He is a qualified lawyer and has advised infrastructure investors in Europe.

David Ehrhardt, Chief Executive



Professional qualifications

Bachelor of Laws, Victoria University,
New Zealand

Bachelor of Commerce, Economics,
Otago University, New Zealand

Key areas of expertise

- Water Utility Reform
- Transaction Advisory
- Institutional Design
- Private Finance & PPPs

Profile summary

Mr. David Ehrhardt is Castalia's Chief Executive and a recognised expert in developing innovative thinking on sector reforms and private sector participation. He has 25 years of experience in institutional and regulatory reform of water utilities. He has designed capital expenditure plans, and advised on financing and deliver those plans, so as to meet service coverage and security goals at least cost. He has assisted Essex Water and Severn Trent in the UK, Melbourne Water and the Hobart Water Board in Australia, and Watercare in New Zealand in these matters.

As an institutional and organisational specialist, David has developed management turn-around plans, business plans, and institutional reforms for more than 30 water utilities, in Africa, Asia, and Latin America. David is also highly experienced in evaluating water investments from an economic and financial perspective and is recognised as a world leader in design of Public Private Partnership contracts, particularly in the water sector. He has authored a range of best-practice publications for the World Bank and other international agencies.

David began his career at the New Zealand Treasury working on the privatisation of the electricity sector and design of energy markets.

Context to the Reforms



Context to three waters reforms

There are serious and well-publicised problems in some locations in New Zealand



Once in a generation opportunity to reform

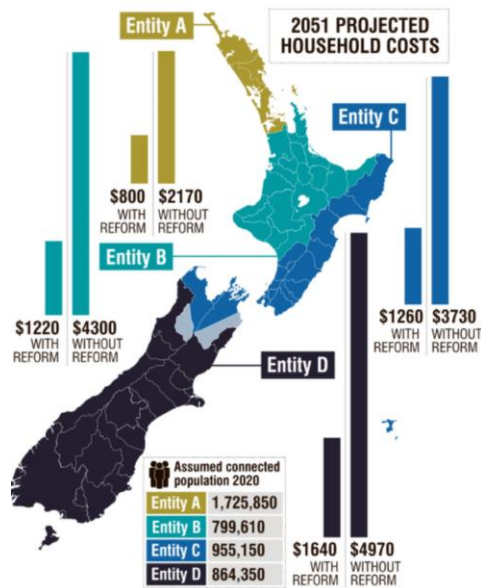
Water services are critical to wellbeing

Objective should be to provide safe, resilient, reliable, and customer responsive water services, at least cost

Government's three waters reform proposal

The government's top-down, nationwide solution is to reform the sector into four statutory corporations

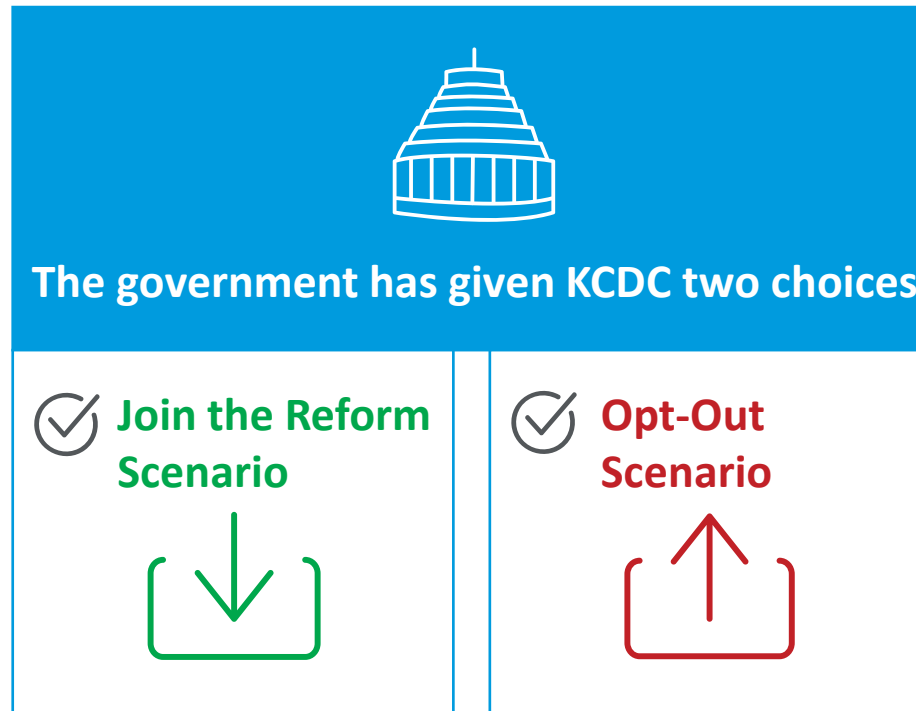
Kāpiti Coast District Council's (KCDC) water services will be amalgamated into Entity C



**Will the reform
deliver benefits to
the Kāpiti Coast
community?**



The government has given KCDC two choices:

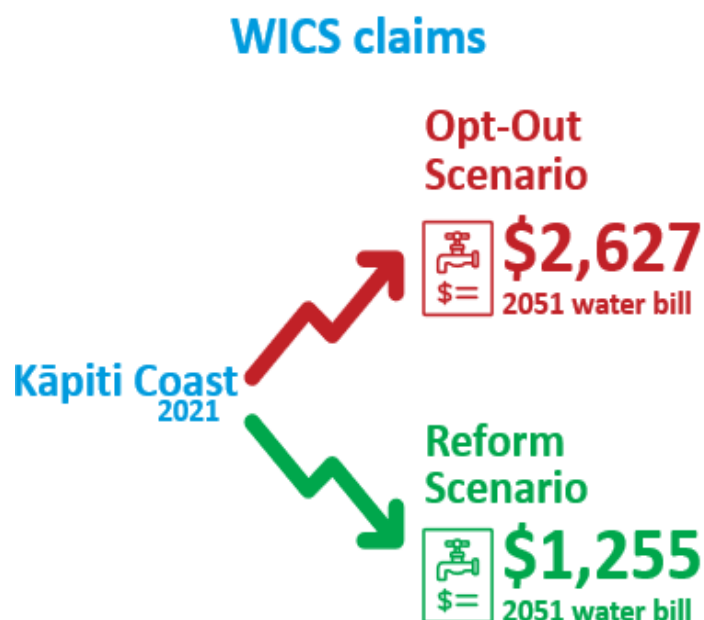


Key question Castalia has been hired to help you answer:

Will the Reform Scenario deliver the benefits claimed by the government?

Reform Scenario promises to more than halve bills

The government claims that 2051 bills will be more than half in the Reform Scenario compared to the Opt-Out Scenario. This relies on assumptions and analysis by Water Industry Commission for Scotland (WICS).



Based on these implausible assumptions



New Zealand's level of water investment should match that of Scotland



Amalgamated entity can achieve:

- 61.9% opex savings
- 50% capex savings

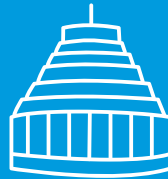


Standalone councils will make no improvements whatsoever

Analysing the three key claims



Government's claims of benefits from reform rest on three key claims



The government's three key claims

Massive investment needed:

That KCDC (and New Zealand as a whole) needs to invest to match Scottish levels of water sector capital stock per resident

Efficiencies will be achieved in Reform Scenario:

- 50% in capex efficiency
 - 62% in opex efficiency
- Compared to Opt-Out

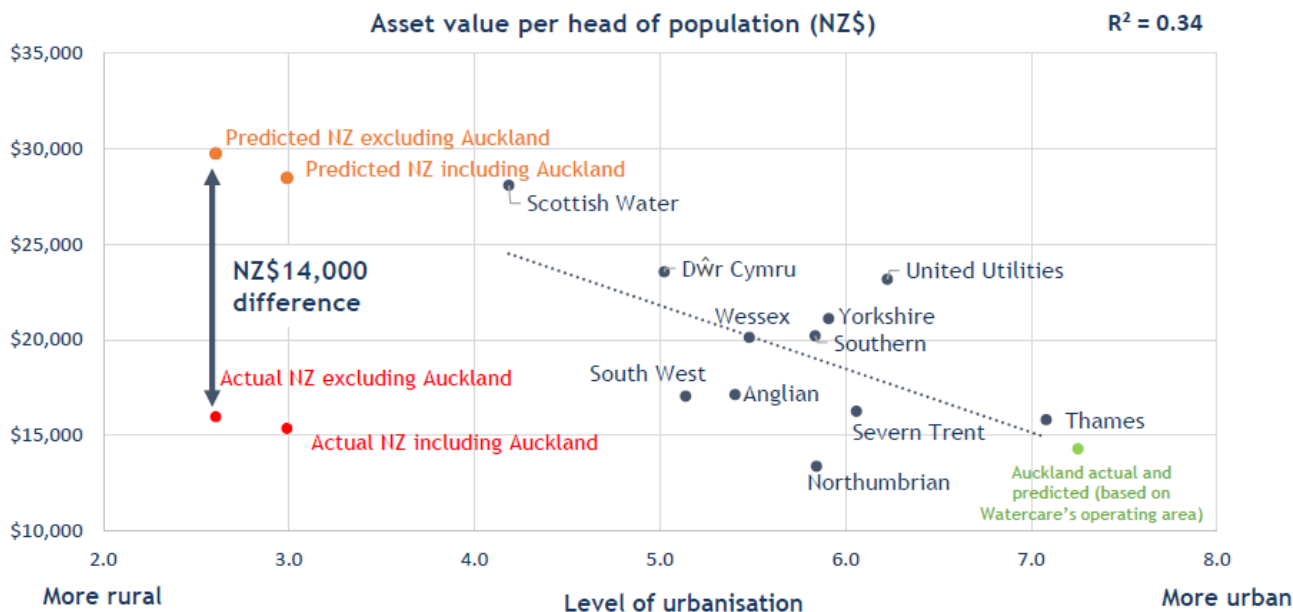
Opt-Out KCDC does not improve:

KCDC as an Opt-Out entity will not improve over the next 30 years

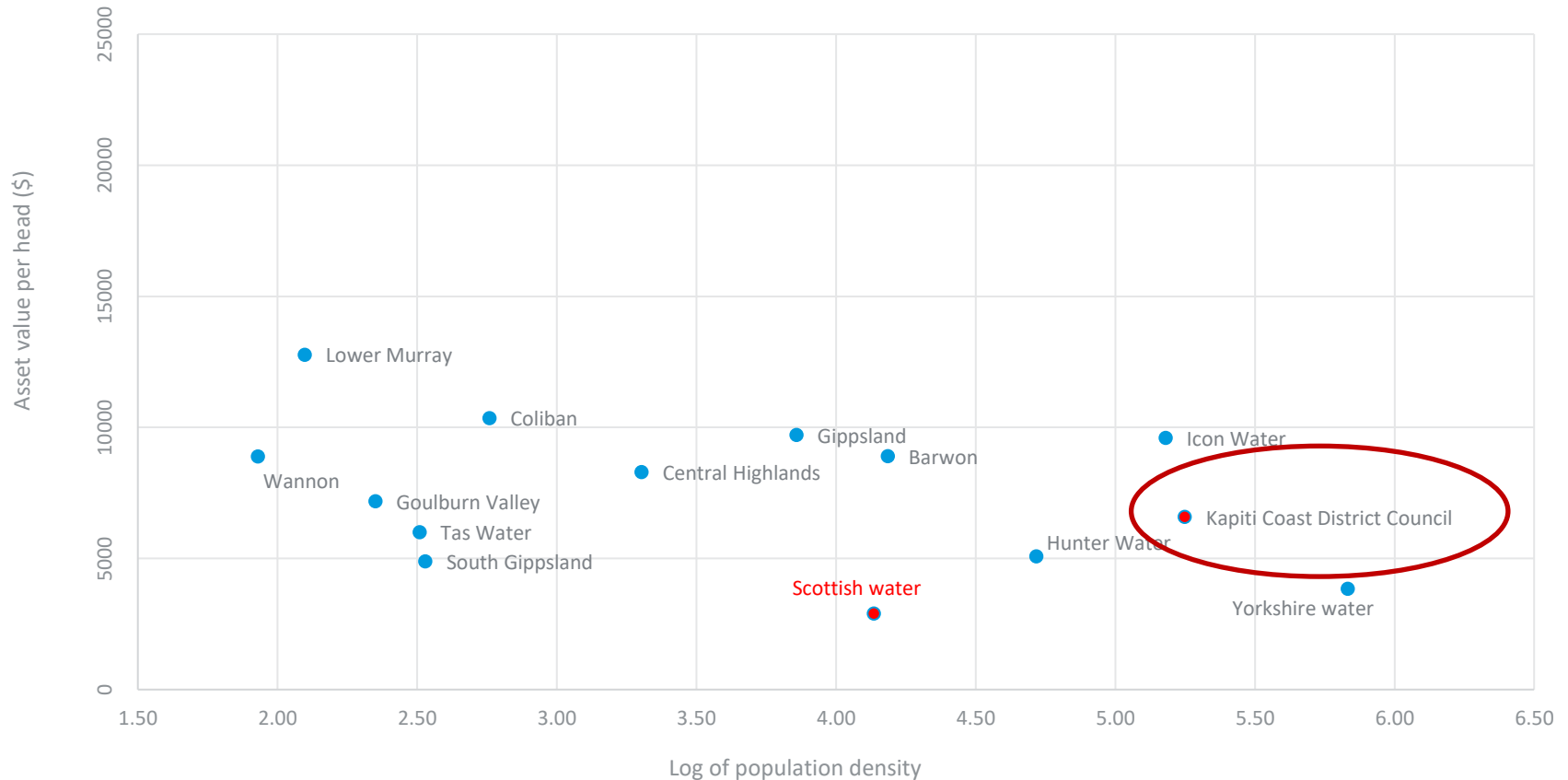
 Each of these claims is based on flawed assumptions and faulty analysis

Claim 1: KCDC needs to match Scottish levels of water sector capital stock (\$70,000 per head by 2051)

When WICS extended this analysis to New Zealand, reported asset values appeared to be on the low side...



However, when we look to Australia (similar urban geography to NZ) and Kāpiti Coast specifically: a very different picture



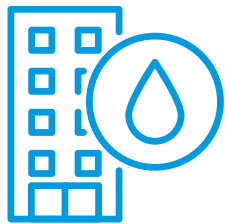
Claim 2: Reform Scenario Entity C can achieve significant efficiencies

Claim: two efficiency drivers will lower bills in Reform Scenario



Capital expenditure (capex) efficiency of **50 percent**

I.e., under Reform Scenario, for each \$0.50 of capex \$1.00 value delivered to Kāpiti Coast community



Operating expenditure (opex) efficiency of **61.9 percent**

I.e., under Reform Scenario, opex spend is more than half, for improved outcomes



Both claims are implausible

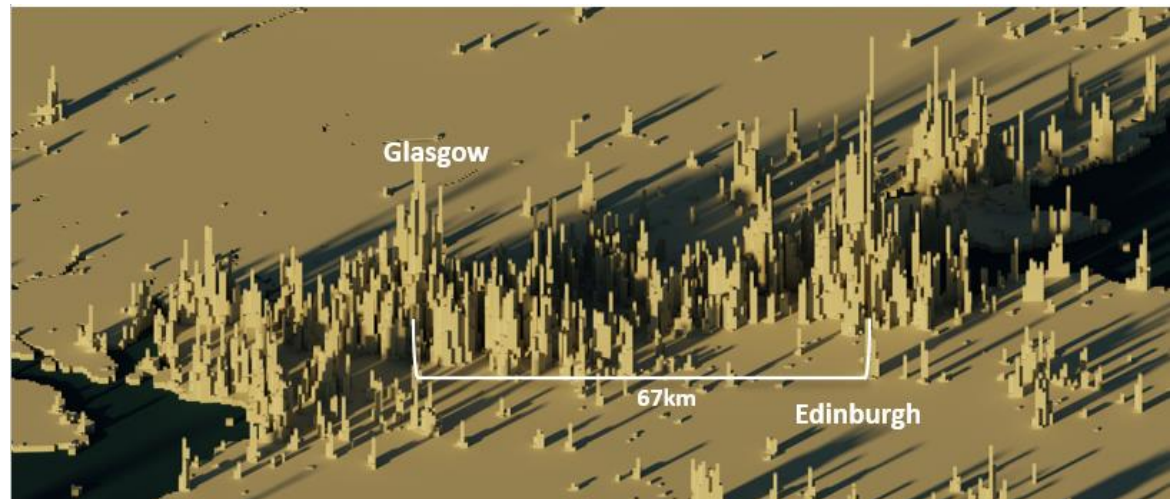
Reform Scenario capex efficiency claims implausible

- 50 percent capex saving is not sourced to any credible authority or from any observed experience that is relevant to New Zealand
- WICS has not shown how Scottish Water capex 2002-2020 has any bearing on New Zealand water services and geography (very different urban geography in Scotland and New Zealand). **No significant joining of NZ water infrastructure possible**
- Only very minor economies of scale are available in New Zealand water services (Castalia 2020 report to LGNZ, released to Mayors in August 2021)
- The capex assumption has been criticised by government-appointed peer reviewers
- The assumption does not consider diseconomies of scale.

 **The Entity C model results are highly sensitive to this assumption, so if it is wrong, the benefits of the Reform Scenario change drastically.**

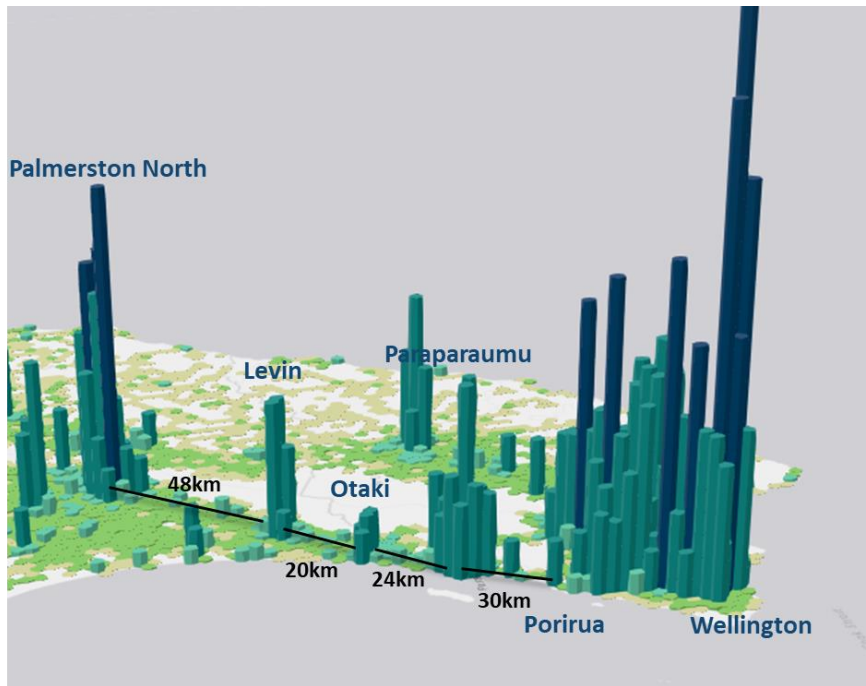
Capex efficiency implausible due to geography

Scotland's central belt:
80 percent of population
in connected towns

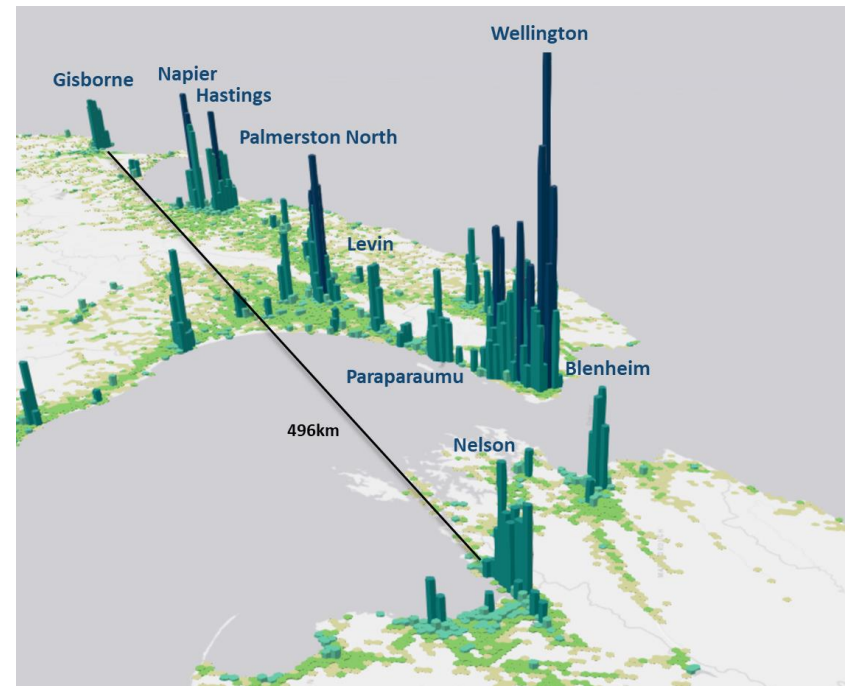


Capex efficiency implausible due to geography

Kāpiti towns and surrounds



Entity C towns and distances

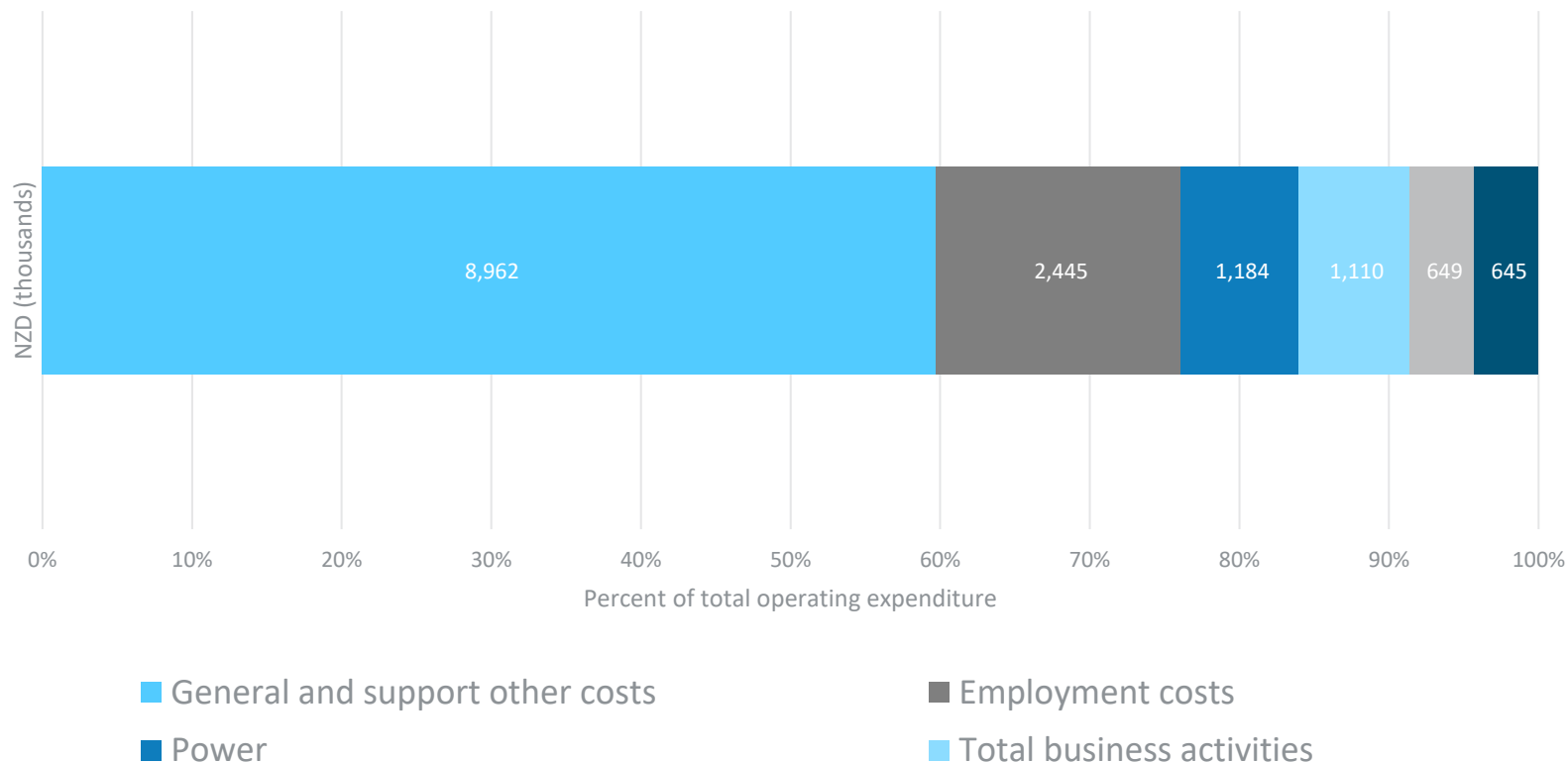


Reform Scenario 61.9% opex efficiency claim implausible

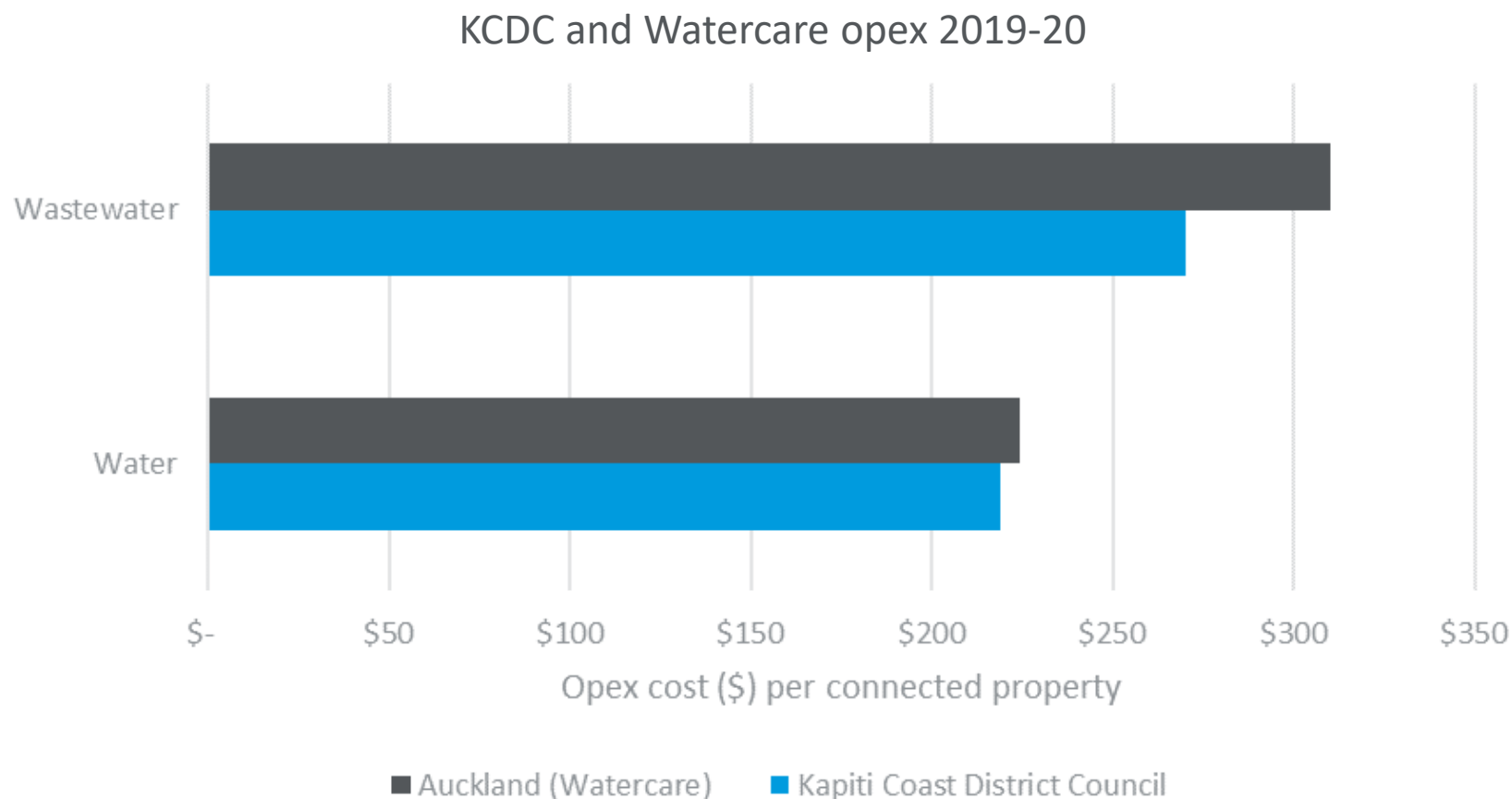
- Based on 2004 Ofwat study and econometric models
 - Why 2004? Why Ofwat?
 - Peer reviewer of WICS noted: “care needs to be taken as it is not possible to conclude that those efficiencies can be realised”
 - No robust testing of Ofwat model or WICS’ added “special factors” for New Zealand
- KCDC’s opex profile suggests that 61.9% saving is implausible
- Ministers and LGNZ Joint Steering Committee representatives promise no job losses, so no “efficiencies” from staff rationalisation

61.9% savings implausible given KCDC's opex profile

Kāpiti Coast District Council water services opex 2019-20



KCDC's opex compares well to Watercare



KCDC: ~26,000 connections

Watercare: ~525,000 connections

Claim 3: KCDC will not make any improvements under Opt-Out Scenario

- Taumata Arowai and other regulatory improvements likely to lift KCDC performance
- Economic regulation regime can apply to KCDC – government wrong to assume regulation cannot apply to many entities (compare to Electra and other EDBs)
- WICS' pessimistic financing assumption doubles the household bill in Opt-Out Scenario. KCDC may be able to improve its financing



Kāpiti water treatment plant | Source: Kāpiti Independent News



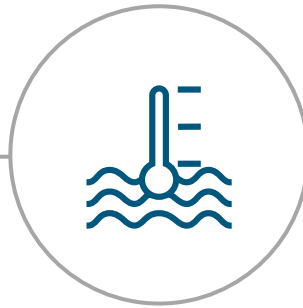
**Other costs and
risks with
Reform Scenario**



Other costs and risks associated with reform



**Local accountability
is lost**



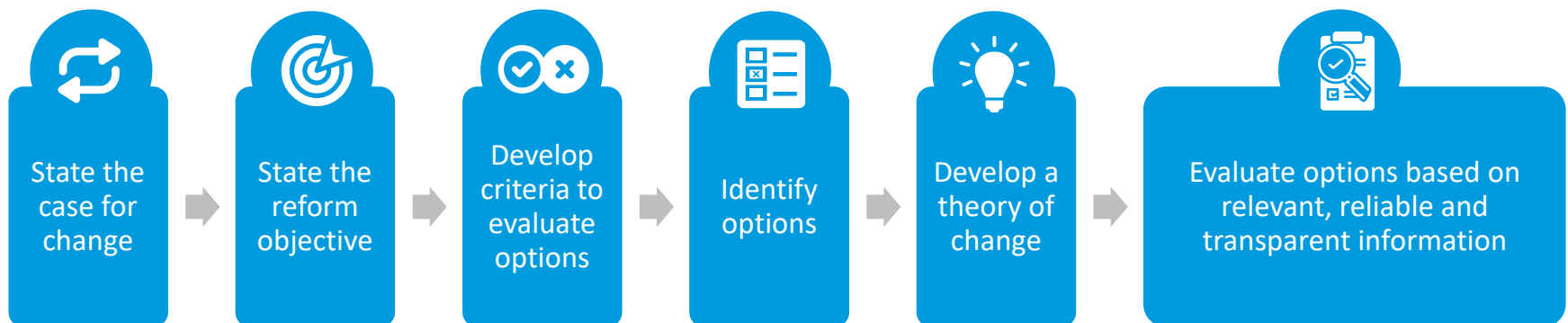
**Local variability in
service and quality
levels is lost (eg,
rural supply)**



Economies of scope

Recommended next steps

- Identify where benefits can be achieved for KCDC. Consider cooperation with neighbours?
- Develop credible counter-proposal:
 - Net benefit analysis using councils' very good RFI data (which wasn't used by WICS)
 - Don't need 800,000 customers to achieve benefits
 - Shared services? (eg, water scientists)
 - Jointly-owned CCO? <50% shareholding would free up financing
- Insist on robust process:





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Thinking for a better world.

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