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2020 REVIEW

SERVICES TO COMMUNITIES

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SERVICES TO COMMUNITIES

- 1 The paper provides Commission staff proposals for the assessment of Services to communities expenses for the 2020 Review.

2015 REVIEW APPROACH

Services included in this category

- 2 The Services to communities category covers State subsidies for the provision of electricity, water and wastewater services (utilities subsidies) and a range of expenses for the administration of communities and community development, community amenities and environmental protection services.
- 3 State concession expenses related to water and electricity services, and expenses related to irrigation and other industrial uses of water are assessed in the Welfare and Services to industry categories respectively.

Category and component expenses

- 4 Services to communities expenses are assessed in four components, with electricity, water and wastewater subsidies jointly assessed as utilities subsidies. Table 1 shows the category expenses. Total Services to communities expenses were \$6.6 billion in 2016-17.

Table 1 Category expenses by component, 2016-17

Component	Amount	Proportion of total expenses
	\$m	%
Utilities subsidies	1 683	25.4
Community development	2 226	33.6
Community amenities	29	0.4
Protection of the environment (net)	2 694	40.6
Total	6 633	100.0

Source: Commission estimates based on State-provided data.

Data sources and assessment methods

- 5 Table 2 shows the disabilities and relative sizes of the category components and sub-components.

Table 2 Sub-component weights and disabilities

Component/sub-component	Disabilities	Sub-component weight
		%
Electricity - common subsidies	Population	9.2
Electricity - differential subsidies	The population in small, remote and very remote communities, with additional weighting for very remote communities and recognition of diseconomies of small scale	9.2
Water and wastewater - common subsidies	Population	3.5
Water and wastewater - differential subsidies	The population in small, remote and very remote communities, with additional weighting for very remote communities and recognition of diseconomies of small scale	3.5
Community development - Indigenous	The population in discrete Indigenous communities, and differences in wage costs and regional costs	5.0
Community development - other	Population outside discrete Indigenous communities, and differences in wage costs and regional costs	28.6
Community amenities	Population, and differences in wage costs and regional costs	0.4
Protection of the environment	Population, and differences in wage costs	40.6
Total		100.0

Source: Commission estimates based on State-provided data.

Utilities subsidies

- 6 Utilities subsidies include both electricity subsidies and water and wastewater subsidies. The utilities subsidies assessment is divided into two components:
 - common subsidies which allow tariffs in metropolitan areas to be set below the cost of service delivery
 - differential subsidies for residents outside metropolitan areas, principally in smaller and isolated communities, who receive additional and differential subsidies to meet the higher cost of electricity, water and wastewater provision.
- 7 Total subsidies are allocated on a 50/50 basis to common and differential subsidies based on State data and the Commission's judgement. Common subsidies are assessed equal per capita (EPC) because as they are provided to all residents in the States where they apply.
- 8 The differential subsidies assessment recognises that some States subsidise electricity and water services in smaller, geographically isolated communities where full cost recovery is not feasible. Differential subsidies are assessed using the number of people in remote or very remote areas and living in communities of between 50 and

1 000 people. A regional cost weight based on the general gradient is also applied, to recognise that subsidies in small communities in very remote areas are higher than those in remote areas. The gradient is discounted by 25% because that gradient, based on schools and police data, is unlikely to be totally appropriate for water and electricity subsidies. We also apply a service delivery scale (SDS) factor based on that used in the Schools assessment, discounted by 25%.

- 9 Only subsidies are assessed in this category. Concession payments (for example, to pensioners and churches) are assessed in the Welfare category. Regulation expenses for the electricity and water sectors are assessed in Services to industry.
- 10 Table 3 shows the utilities subsidies expenses for 2016-17.

Table 3 Utilities subsidies expenses, 2016-17

	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total
	\$m	\$m	\$m	\$m	\$m	\$m	\$m	\$m	\$m
Electricity	0	0	599	469	10	10	0	128	1 216
Water and wastewater	27	6	26	269	108	0	0	31	467
Total	27	6	626	738	118	10	0	159	1 683

Source: State data from the 2018 Update.

Community development

- 11 Community development expenses include administration and planning for housing and industries including regulating land use, administering zoning laws and building standards, and planning for facilities for education, health, recreation and culture. This component does not include expenses to fund the actual construction of housing, industrial buildings, public utilities or any other facilities, and does not include public housing services or economic development expenses.
- 12 The assessment of community development expenses recognises that States spend more per capita on Indigenous community development to provide additional support for the governance and management of discrete Indigenous communities, in recognition of their greater needs due to their remoteness, and generally small populations on low incomes.
- 13 The assessment of Indigenous community development expenses is based on State shares of Indigenous people living in discrete Indigenous communities. Discrete Indigenous communities are defined as Statistical Area 1s (SA1s) with populations that are more than 50% Indigenous.¹ Non-Indigenous community development

¹ SA1s are geographical areas and generally the smallest unit for the release of census data. SA1s have a population of between 200 and 800 people with an average population size of approximately 400 people. SA1s are built from whole Mesh Blocks, the smallest geographical area defined by the ABS.

expenses are assessed using the remaining population, which more or less equates to an EPC assessment.

Community amenities

- 14 Community amenities expenses cover the design, installation, operation and maintenance of street lighting, provision of facilities such as public toilets, drinking fountains, bus shelters, cemeteries and crematoria. In most States these services are provided by local government rather than States.
- 15 The community amenities component is very small, around \$30 million in 2016-17. Community amenities expenses are assessed EPC because State population shares are considered the appropriate way of allocating expenses.

Protection of the environment

- 16 Protection of the environment expenses cover a diverse range of services including developing and monitoring pollution and air quality standards, pollution abatement and control, regulation, control and prevention of erosion of beaches and foreshores, flood mitigation in urban areas, maintaining river systems, research into environmental protection, environmental assessments, managing industrial chemicals, waste disposal and biodiversity and species conservation.
- 17 Protection of the environment services are assessed on an EPC basis because the expenses cover a wide variety of services and cost drivers cannot be identified. A wage cost disability is applied. A regional cost disability is not applied because it is not always clear where services are provided.
- 18 Environmental assessment expenses associated with major infrastructure projects are assessed in the Services to industry category.

Investment and depreciation

- 19 The Services to communities category accounted for less than 1% of total State assets in 2016-17. The infrastructure assessments recognise that Services to communities' functions affect the quantity of infrastructure States own by applying the weighted service users for the category to the relevant assets. Interstate differences in wage levels, the price of materials and other unavoidable factors affecting the cost of infrastructure are also taken into account. In addition, the infrastructure assessments recognise the impact of differences between States in population growth on the need for infrastructure.
- 20 The assets of State-owned utilities are out of scope for the infrastructure assessments. However, these assets affect the value of States' net financial worth which is equalised in the Net borrowing assessment.

GST redistribution

- 21 In the 2018 Update, the category redistributed \$795 million primarily to the Northern Territory, Western Australia and Queensland, and away from New South Wales, Victoria, and the ACT. Most of the redistribution is due to the differential utilities subsidies and Indigenous community development assessments. Spending on these functions accounted for 18% of category expenses.

Table 4 GST redistribution due to Services to communities, 2018 Update

	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Redist
	\$m	\$m	\$m	\$m	\$m	\$m	\$m	\$m	\$m
Utilities	-273	-249	87	159	62	21	-17	210	539
Community development	-120	-128	36	39	-19	-8	-8	207	282
Community amenities	0	0	0	0	0	0	0	0	0
Protection of the environment	1	-3	-2	5	-2	-1	1	1	7
Total	-392	-379	121	203	41	12	-24	417	795

Source: Commission calculation, 2018 Update.

ISSUES AND ANALYSIS

Utilities expenses

- 22 Electricity, water and wastewater² subsidies were jointly assessed in the 2015 Review. A distinction was drawn between common subsidies and differential subsidies. Common subsidies were assessed EPC as they were provided to all residents in the States where they apply, and differential subsidies were assessed using State shares of the population in small communities in remote and very remote regions.
- 23 The following sections outline a proposal to use State-provided data to develop separate assessments of electricity and water subsidies because the average subsidies for electricity and water are likely to be different. This was the approach in the 2010 Review. The decision in the 2015 Review to adopt a combined assessment for electricity and water was due to a lack of reliable data for estimating how subsidies in different classes of communities vary from the average subsidy. In this review we intend to use State-provided data, at least for electricity, to assess different levels of subsidies for communities of different size and remoteness.
- 24 States already report total electricity and water subsidies separately so annual data are available to reliably measure total electricity and water subsidies. Data for 2016-17 show that within States, there is no consistency between the amount of

² Hereafter water and wastewater subsidies are referred to as water subsidies.

subsidies provided for electricity compared to water (Table 3). This further supports a separate treatment of electricity and water subsidies.

Staff propose to recommend the Commission:

- split the utilities component into electricity subsidies and water subsidies, recognising that average subsidies for these services are likely to be different
- update the split between electricity and water subsidies annually using data already available from the States.

Electricity subsidies

State policies and proposed assessment approach

- 25 In densely populated areas, States have energy networks that transport electricity from large-scale generators to consumers. Around 88% of all Australian consumers are connected to the National Electricity Market (NEM) transmission grid, which covers large areas of the eastern States, Tasmania and South Australia. Western Australia and the Northern Territory have their own State-based grids — the South West Interconnected System (SWIS) and North West Interconnected System (NWIS) in Western Australia, and the Darwin-Katherine Interconnected System (DKIS) in the Northern Territory. The cost of providing services to on-grid populations is affected by the scale of operations, fuel source, population density, environmental programs, service standards and maintenance costs.
- 26 Outside the grids in Queensland, South Australia, Tasmania, Western Australia and the Northern Territory, electricity is produced by small isolated generators. Off-grid communities represent less than 1% of the Australian population, and are generally small and located in remote and very remote areas.³ Service provision to off-grid communities is more expensive due to the use of higher cost fuel sources (often diesel), diseconomies of scale, low population density and remoteness.
- 27 Due to the very high cost of supplying electricity to isolated, off-grid communities, Queensland, Western Australia, South Australia, Tasmania and the Northern Territory provide subsidies to reduce the cost of services. Subsidies are also provided to some on-grid customers in Queensland, Western Australia and the Northern Territory to allow all customers to pay less than the cost of supplying electricity. The electricity subsidy policies of the States are summarised below.
- New South Wales, Victoria and the ACT do not provide electricity subsidies.
 - Queensland subsidises customers in regional areas with access to the NEM because the cost of transmission and distribution is higher in more sparsely

³ State data for the 2020 Review confirm the proportion of the population living in off-grid communities which receive financial assistance from State governments was 0.6% in 2015-16. Just over 40% of these people live in communities in remote areas with the balance in very remote areas.

populated areas. It also provides subsidies for 32 small isolated remote and very remote communities which do not have access to the NEM. This includes Indigenous communities in the Torres Strait and on Palm Island. The subsidies allow all electricity customers in the State to pay the cost reflective price in south-east Queensland.

- Western Australia subsidises all electricity customers including customers connected to the SWIS. The largest per capita subsidies are provided for communities which rely on 33 isolated electricity generation systems operated by Horizon Power. Smaller subsidies are provided for communities serviced by the NWIS. From 2017-18, the subsidy to Synergy, which is the main retailer and generator for the SWIS, will be phased out.
- South Australia subsidises the cost of electricity supplied to remote communities through the Remote Areas Energy Supplies (RAES) scheme. The scheme supplies electricity to remote towns through the RAES State/Independent scheme, and to the remote Aboriginal communities of Anangu Pitjantjatjara Yankunytjatjara, Yalata on Aboriginal Lands Trust and Oak Valley on Maralinga Tjarutja through the RAES Aboriginal Communities scheme. The RAES scheme supplies electricity to about 3 400 customers.
- Tasmania subsidises electricity on Flinders Island and King Island due to the very high cost of operating their isolated, diesel fuelled generation systems.
- The Northern Territory subsidises all customers including those in Darwin, Katherine, Tennant Creek and Alice Springs. Electricity for these communities is generated by Territory Generation. Power and Water Corporation (PWC) is the distribution network provider. Indigenous Essential Services, a subsidiary of PWC, is responsible for the supply of electricity to 72 Indigenous communities and 66 outstations.⁴ It receives an annual subsidy to meet the shortfall between revenue and the cost of providing services.

28 The subsidy arrangements in Queensland, Western Australia and the Northern Territory allow all customers in these States to pay the same (or uniform) electricity tariffs regardless of where they live. The subsidies allow tariffs to be set below cost reflective levels. The uniform tariff policies of Western Australia and the Northern Territory differ from Queensland's policy because the former provide subsidies for all customers. Queensland does not subsidise customers in south-east Queensland. Western Australia's policy is expected to align with Queensland's after 2017-18 when the subsidy for customers connected to the SWIS (\$281 million in 2016-17) is due to be phased out.

29 For the review, staff have requested from States electricity data by community/service area including expenses, revenue and subsidies, the amount of electricity supplied, number of connections, fuel type, Indigenous status of the

⁴ IES is also responsible for water and wastewater services for the communities.

community and geospatial information about the service area. We have received comprehensive data from the five States that provide electricity subsidies (Queensland, Western Australia, South Australia, Tasmania and the Northern Territory).

- 30 Staff intend to use this information to confirm the conceptual case for an electricity subsidies assessment and to build an assessment which recognises that different levels of subsidies are paid for communities of different size and remoteness. We will also consider the influence of fuel type and community Indigenous status on the level of subsidies. We do not propose to differentially assess subsidies for communities where full cost recovery is feasible.

Average electricity subsidies

- 31 State-provided data have been used to measure average electricity subsidies for different classes of communities in the five States which provide subsidies.
- 32 **Community size and remoteness area.** Table 5, Table 6 and Table 7 provide information about average subsidies for on- and off-grid communities.
- 33 All of the 147 off-grid communities receiving subsidies are located in either remote or very remote areas. Only 12 of the 147 off-grid communities receiving subsidies are in remote areas, with the remaining 135 in very remote areas. The average subsidy per capita for remote areas was \$1 433 compared with an average subsidy of \$2 135 for very remote communities. About 45% of subsidies were for remote communities and 55% for very remote communities. On average, very remote communities receiving subsidies were significantly smaller than remote communities (Table 5).

Table 5 Electricity subsidies for off-grid populations by remoteness area, 2015-16

	Count	Population	Average size	Subsidy	Average subsidy
	no.	person	persons	\$m	\$pc
Remote	12	58 629	4 886	84	1 433
Very remote	135	76 374	566	163	2 135
Total	147	135 003	918	247	1 830

Source: Based on data provided by Queensland, Western Australia, South Australia, Tasmania and the Northern Territory for the 2020 Review.

- 34 Table 6 shows, for off-grid communities, as the size of the community increases the average subsidy falls. There is a large difference between the average subsidy per capita for very small communities with up to 250 people and communities above this threshold.

Table 6 Electricity subsidies for off-grid populations by community size, 2015-16

Community size	Count	Average community size	Average connections	Total subsidies	Average subsidy	
		no. persons	no.	\$m	\$ per capita	\$ per connection
0 to 250	50	132	62	29	4 429	9 479
251 to 1 000	70	494	194	63	1 826	4 647
1 001 to 2 500	16	1 449	518	42	1 794	5 019
2 501 to 20 000	11	6 424	3 256	113	1 600	3 156
All off-grid communities	147	919	413	247	1 830	4 065

Note: For our analysis it was necessary to combine the information for a number of very small Indigenous communities in South Australia which shared a common generation source. Data for Alice Springs and Tennant Creek are not yet available.

Source: Based on data provided by Queensland, Western Australia, South Australia, Tasmania and the Northern Territory for the 2020 Review.

35 Table 7 shows average subsidies per connection for on-grid customers in Queensland, Western Australia and the Northern Territory. Subsidies per connection are higher for small, isolated grid systems (for example, NWIS) with fewer connections reflecting the diseconomies of small scale, and for customers on the NEM when customer density is low (for example, Regional Queensland West).

Table 7 Electricity subsidies for on-grid customers, 2015-16

System	Connections	Subsidies	
	no.	\$m	\$ per connection
North West Interconnected System (NWIS)	16 205	47	2 926
South West Interconnected System (SWIS)	1 056 170	308	291
Regional Queensland East (NEM)	662 354	255	385
Regional Queensland West (NEM)	67 481	213	3 161
Darwin Katherine Interconnected System (DKIS)	nya	nya	nya
Total	1 802 210	823	457

Source: Based on data provided by Queensland, Western Australia and the Northern Territory for the 2020 Review.

36 **Indigenous status.** There is some evidence from South Australia and the Northern Territory that remote Indigenous communities receive a higher level of subsidy, compared to other remote communities, due to lower levels of cost recovery. Evidence also suggests that consumption levels in Indigenous communities are high, due to poor building design, inefficient and ageing electrical appliances and overcrowding.⁵ Despite this, our preliminary analysis of State data indicates that the average subsidies for small non-Indigenous communities are higher than those for Indigenous communities. This may reflect the broader economic base in

⁵ Queensland Council of Social Service, *Snapshot: Empowering Remote Communities, August 2014* and Bushlight, *Pre-Payment Meters and Energy Efficiency in Indigenous Households, 2013*.

non-Indigenous communities where subsidies benefit small businesses as well as households. In communities with over 2 500 people, average subsidies for Indigenous communities are high compared with non-Indigenous communities. There are only four Indigenous communities receiving subsidies with populations between 2 501 and 20 000 but two are located on Thursday Island and Palm Island in Queensland. These isolated communities receive very high per capita subsidies (Table 8).

Table 8 Electricity subsidies for off-grid communities by Indigenous status, 2015-16

Community size	Count	Average community size	Median community size	Average connections	Average subsidy	
					\$ per capita	\$ per connection
	no.	persons	persons	no.		
Indigenous						
0 to 250	26	146	149	55	2 626	7 024
251 to 2 500	65	655	459	176	1 333	4 965
2 501 to 20 000	4	2 749	2 631	561	1 725	8 454
All Indigenous	95	604	403	159	1 494	5 677
Non-Indigenous						
0 to 250	24	118	101	70	6 856	11 564
251 to 2 500	23	927	594	593	4 747	4 747
2 501 to 20 000	5	10 705	10 631	6 071	1 443	2 544
All Non-Indigenous	52	1 494	295	878	2 078	3 533

Source: Based on data provided by Queensland, Western Australia, South Australia, Tasmania and the Northern Territory for the 2020 Review.

37 **Fuel source.** Generating electricity using diesel is considerably more expensive due to the high cost of diesel and transport. Access to lower cost gas varies between regions and States. Renewable energy sources including wind and solar are becoming increasingly common but gas and diesel remain the main fuel sources for off-grid communities. Coal is the main fuel source for on-grid, subsidised communities (Table 9).

Table 9 Fuel sources for subsidised communities, by grid connectivity status and amount of electricity purchased/generated

	Coal	Gas	Diesel	Renewable	Mixed diesel, renewable	Other mixed	Total
	%	%	%	%	%	%	%
On-grid	86.2	12.1	0.0	1.1	0.0	0.6	100.0
Off-grid	0.0	40.4	34.2	9.4	8.9	7.2	100.0
Total	84.8	12.5	0.6	1.3	0.1	0.7	100.0

Source: State data request for the 2020 Review.

Note: Five communities/networks with indeterminate fuel type or mixed grid connectivity status were excluded.

- 38 A fuel type disability is not currently assessed. Using the State data we intend to investigate how costs are affected by different fuel sources but we will have regard for the potential for State policies to affect the availability of different fuel types.

Electricity subsidies assessment

- 39 Our analysis of State electricity data is incomplete. We expect to complete our work by the end of June 2018 and will advise States of our findings through the Officer Working Party. There are two main issues to be addressed.
- Staff intend to use the State electricity subsidy data to identify the point (community size and remoteness) at which full cost recovery is not feasible. This should allow us to identify subsidies which are not the result of very high costs but State policy choice.
 - How do subsidies for uneconomic services in different classes of community vary with community size and remoteness?
- 40 We also intend to complete our analysis of the influence of Indigenous status and fuel type although these are second order considerations.
- 41 The outcomes of our analysis will determine how the electricity assessment will be structured.

Staff propose to recommend the Commission:

- determine at what point full cost recovery for electricity services is not feasible
- differentially assess electricity subsidies which are the result of unavoidably high costs recognising that subsidies vary by community size and remoteness area
- not differentially assess electricity subsidies when the decision to not fully cost recover is due to State policy choice.

Water subsidies

- 42 Water services are generally provided by State-owned or local government-owned utilities. Costs for the operation, maintenance, and administration of water utilities are influenced by many factors, including water source, climate and rainfall, community size, customer density, the distance and way that water and wastewater is transported, input costs and the level of water and sewage treatment required. Water subsidies mostly benefit households in regional areas where tariffs are not fully cost-reflective due to the high cost of service provision.
- 43 We requested from States water and wastewater data by community/service area including expenses, revenue and subsidies, the amount of water provided/sewage processed, water source type, proximity to the water source, length of pipelines,

number of treatment plants and pumping stations, geospatial information about the service area, Indigenous status of the community and number of connections.

- 44 We have received data from the six States that provide water subsidies (all except Tasmania and the ACT). In some cases data for a sample of communities were provided. Most States were not able to provide data at the community level, which will limit the analysis that can be reliably performed. Data were requested only for communities that receive subsidies. Tasmania and the ACT do not provide water subsidies and were not asked to provide data. Data will be shared in an aggregated format with all States due to confidentiality.⁶
- 45 As far as possible, these data will be used to investigate the cost drivers for water subsidies and to measure average subsidies for different sized communities by remoteness area. Similar to electricity, we will try to establish at what point full cost recovery becomes feasible. We do not intend to differentially assess water subsidies for communities where full cost recovery is feasible.
- 46 As noted in paragraph 23 we intend to develop a separate assessment for water subsidies.

Potential cost drivers

- 47 State water data will be examined to see how factors such as community size, customer density, remoteness, and water quality and availability affects the amount of subsidies that States provide. Staff have not yet started to analyse State water data. This work will be completed during the second half of 2018. As a general observation, there appear to be some quality issues with the water data which is likely to affect our capacity to use the data to redevelop the water subsidies assessment.
- 48 **Community size, remoteness and customer density.** There are economies of scale for large utilities, particularly for infrastructure and the operation and maintenance costs of water treatment works. Small treatment plants generally require more staff to operate and larger plants can generally reduce this cost. On average, operating costs per connection are higher for small utilities. This means that States with uniform tariff subsidies are providing higher subsidies to communities which must rely on smaller utilities.
- 49 Urban utilities with high customer density also tend to have lower operating costs compared with utilities with medium or low customer density. The effect is likely to be more pronounced for more remote service providers. Distribution networks are a major investment component of a water supply system and the density of urban development has a large effect on the infrastructure cost. Another factor is the

⁶ Queensland have advised that its data are highly confidential.

number of small discrete water supply systems operated by the utility, which tend to increase both the capital cost and the operating cost per property.⁷

- 50 **Water quality and availability.** States access different water sources due to the availability of natural resources, climate and where people live. There is mixed evidence about the relative costs of ground water and surface water. A range of factors influence these costs, including quality of the water and accessibility to the source. Water quality affects the degree of treatment required for water and wastewater and hence treatment costs. Accessibility to the source affects the cost of pipelines and distribution systems.
- 51 Both the ACT and Tasmania agreed that water quality and availability affected costs in their recent comments on water research papers.⁸ Western Australia has previously said that accessibility is an issue for some communities, including Kalgoorlie, which relies on a 600 kilometre pipeline from Mandaring Weir near Perth for its water supply. WaterNSW is currently constructing a 270 kilometre pipeline from Wentworth to Broken Hill to provide long-term water security for Broken Hill. Due to the high cost of the pipeline, the New South Wales government has announced it will not recoup the full cost from customers.
- 52 The Bureau of Meteorology (BOM) produces regional water information on groundwater quality, rainfall data and other water statistics. We intend to investigate ways to combine some of these data with the State data to investigate the relationship between subsidy levels and environmental factors.

Developing the water subsidies assessment

- 53 The outcome of staff analysis of water subsidies data will be shared with States in the second half of 2018. If it is not possible to develop an assessment for water subsidies similar to the proposed electricity assessment, staff propose to retain the current approach for water and wastewater subsidy expenses. In this case, we would confirm whether the current community size thresholds are appropriate using the data supplied by States.

⁷ In response to Staff Research Paper *CGC 2016-20-S, What States Do – Water subsidies*, the ACT supported an assessment based on organisational scale. Tasmania, although it does not provide water and wastewater subsidies, has a low ratio of customers to water and wastewater treatment plants, and supported an assessment of customer density. It also noted that its high number of treatment plants was partly due to the previous arrangement whereby several local councils owned and operated water and wastewater infrastructure.

⁸ Tasmania's and the ACT's comments on Staff Research Paper *CGC 2016-20-S, What States Do – Water subsidies*.

Staff propose to recommend the Commission:

- determine at what point full cost recovery for water services is feasible
- not differentially assess water subsidies when the decision to not fully cost recover is due to State policy
- differentially assess water subsidies which are the result of unavoidably high costs.

Community development and amenities

- 54 Community development and community amenities expenses are currently assessed in separate components. Indigenous community development expenses are assessed using the population in discrete Indigenous communities. Other community development expenses are assessed using the remaining population, which more or less equates to an EPC assessment. All community amenity expenses are assessed EPC.
- 55 State spending on community amenities is very small (less than \$30 million in 2016-17). Community development expenses were \$2.2 billion in 2016-17, of which Indigenous community development accounts for 15% or \$331 million.
- 56 The new Government Finance Statistics (GFS) function classification to be adopted in 2017-18 still distinguishes between Indigenous and non-Indigenous community development expenses, but community amenities is no longer split by Indigenous status. This is not an issue because no expenses have been reported as Indigenous community amenities for several years.
- 57 The main issues for the assessment are how to group community development and amenities spending and where to classify the spending in the adjusted budget.

Indigenous community development

- 58 Indigenous community development expenses were \$331 million in 2016-17. The Indigenous population living in discrete Indigenous communities is considered the driver of Indigenous community development spending. In the 2018 Update, the assessment of these expenses redistributed \$205 million from an EPC distribution. The size of the redistribution reflects the uneven distribution of the Indigenous population living in discrete Indigenous communities (Table 10).

Table 10 Population in discrete Indigenous communities, 2016-17

	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total
Population	8 762	37	30 533	18 684	3 120	66	0	49 164	110 364
Population share (%)	7.9	0.0	27.7	16.9	2.8	0.1	0.0	44.5	100.0

Source: ABS estimated population for 2016-17 and small area data from 2016 Census.

- 59 **Measuring Indigenous community development expenses.** The main issue for this assessment is reliably measuring State spending on Indigenous community development. There is a separate classification in the current GFS function classification for this spending but the ABS and many States have advised that the detailed data are not reliable.⁹
- 60 Indigenous community development expenses include State expenses for the administration, operation or support of Indigenous community development and amenities in discrete Indigenous communities. These services are provided in addition to the normal community development functions States perform in all communities.
- 61 The primary concern is to ensure that only relevant expenses are included. Spending on specific functions such as housing, welfare, health and justice should be excluded from this component and assessed in the relevant categories which apply their own Indigenous disabilities. Staff also want to exclude expenses related to utilities subsidies and economic development which are also assessed elsewhere.
- 62 The Northern Territory and Queensland provide general revenue assistance to local councils with a high proportion of Indigenous people. These grants, totalling \$30 million for Queensland¹⁰ and \$31 million for the Northern Territory,¹¹ are intended to assist local councils to meet a wide range of costs including general public services, public order and safety, health, recreation and culture, transport and communication, other economic affairs, education, essential services and public amenities. The grants cannot be disaggregated by purpose. Staff consider that the Indigenous community development component should include these general revenue grants given that the Indigenous population in discrete Indigenous communities is likely to approximate the need for these grants.
- 63 In late 2017 staff sent a draft request to States seeking data on Indigenous community development expenses, including general revenue assistance. We have

⁹ The new Classification of the functions of government - Australia (COFOG-A) of GFS retains a separate class for Indigenous community development.

¹⁰ Queensland Department of Infrastructure, Local Government and Planning, [Annual Report 2016-17](http://dilgp.qld.gov.au/resources/publication/annual-report/dilgp-annual-report-2016-2017.pdf), (<http://dilgp.qld.gov.au/resources/publication/annual-report/dilgp-annual-report-2016-2017.pdf>), [accessed Feb 2018].

¹¹ Northern Territory Department of Housing and Community Development, [Annual Report 2016-17](https://dhcd.nt.gov.au/__data/assets/pdf_file/0010/452980/DHCD-AR-1617.pdf), (https://dhcd.nt.gov.au/__data/assets/pdf_file/0010/452980/DHCD-AR-1617.pdf), [accessed Feb 2018].

received comments from most States on the request. A final request, incorporating State comments, will be sent in May 2018. Responses to the final data request will be used to decide the best approach for estimating annual spending if the GFS data prove to be unreliable.

- 64 Staff propose to continue including Indigenous community development expenses in the Services to communities category, but in a separate component to improve transparency and simplify the assessment. Currently, Indigenous and other community development assessments are assessed in the same component.
- 65 ***Measuring the disability.*** Staff propose to continue using the Indigenous population living in discrete Indigenous communities as the disability for the Indigenous community development expenses, and applying wage costs and regional costs disabilities. We are not proposing any change to the definition of discrete Indigenous communities which are defined as SA1s with populations that are more than 50% Indigenous.

Staff propose to recommend the Commission:

- expand the scope of Indigenous community development expenses to include general revenue grants to local councils with a predominantly Indigenous population because the driver of these expenses is communities with a significant Indigenous population.
- collect data from the States for Indigenous community development expenses to evaluate the quality of GFS data and to decide the best approach for estimating annual component expenses
- assess Indigenous community development expenses in a separate component of the Services to communities category to improve transparency and simplify the assessment
- continue to use the Indigenous population living in these communities as the disability for the Indigenous community development, and applying wage costs and regional costs disabilities
- continue to define discrete Indigenous communities as SA1s with populations that are more than 50% Indigenous.

Other community development and amenities

- 66 Other community development expenses are currently assessed using the population living outside discrete Indigenous communities. This is close to an equal per capita (EPC) assessment. Community amenities expenses are assessed EPC. Wage costs and regional costs disabilities are applied to recognise the differences in wage costs between States and the cost of providing services to different areas within a State.
- 67 Since other community development services are provided to the entire population, including the population in discrete Indigenous communities, we propose to assess

these expenses EPC. We also propose to continue applying wage costs and regional costs disabilities.

- 68 It would be simpler to include spending on other community development and amenities in the Other expenses category where other spending affected by population is assessed.

Staff propose to recommend the Commission:

- continue to assess community amenities expenses EPC
- assess other community development expenses EPC because these services apply to all communities including discrete Indigenous communities
- continue to apply wage costs and regional costs disabilities to other community development and community amenities expenses
- include other community development and amenities expenses in the Other expenses category because this is where most other State expenses which are assessed on the basis of population are classified.

Environmental protection

Disabilities

- 69 In the 2015 Review, environmental protection services were assessed on an EPC basis because the expenses covered a wide variety of services and cost drivers could not be identified. Even though the new GFS classification will make it possible to identify four broad classes of environmental protection expenses, the range of activities included in each class¹² is still varied. For example, the pollution abatement class includes air and climate protection, soil and groundwater protection, noise and vibration abatement and protection against radiation. It also includes expenses on cleaner technologies and products, anti-pollution devices and cleaning of surface water after accidental pollution. Even if it were practical to disaggregate these expenses and identify appropriate cost drivers for each sub-category it is unlikely that the assessments would be material. Since it is neither practical to disaggregate these expenses nor possible to identify a single broad indicator for assessing total spending on environmental protection, staff propose retaining the EPC assessment of these expenses.

- 70 We propose to continue applying the wage cost disability to environmental protection expenses because wage costs have a differential effect on the cost of providing environmental protection services across States.

¹² Classes are equivalent to the former four-digit Government Purpose Classification (GPC). Previously, all environmental protection and wastewater expenses were included in the same 3-digit GPC.

- 71 A regional cost disability was previously not applied, as it was not always clear where environmental protection services were delivered. However, some services are provided in regional areas, including national park and wildlife services which are now included in this division of Classification of the functions of government - Australia (COFOG-A). Staff propose to examine if a regional costs disability should be applied to any of this spending. Previously the regional costs disability was applied to national park and wildlife expenses.
- 72 Environmental protection expenses include activities of environmental protection agencies. Some of the costs associated with these agencies are included in the Services to industry category where they are assessed with other regulation expenses associated with major infrastructure projects. The level of private non-dwelling construction is considered the driver of this spending. Staff propose retaining this assessment in the 2020 Review, if it is material. For details, see the Staff Draft Assessment Paper *CGC 2018-19-S, Services to industry*.

Classification of expenses

- 73 If environmental protection expenses continue to be assessed EPC staff propose including the expenses in the service expense component of the Other expenses category.

Staff propose to recommend the Commission:

- continue to assess environmental protection expenses EPC because it is not practical to disaggregate expenses or possible to identify a single broad indicator for assessing spending on this function
- continue to apply a wage costs disability
- consider applying the regional costs disability to some or all environmental protection expenses, especially in light of changes to the scope of these expenses, which now include national parks and wildlife expenses
- include environmental protection expenses in the service expenses component of the Other expenses category because this is where most other State expenses which are assessed on the basis of population are classified.

User charges

- 74 Most of the user charges for the existing Services to communities category are regulatory charges related to community development and environmental protection functions. The services which generate this revenue are assessed EPC. Currently environmental protection user charges are netted off expenses but community development user charges are not. It would be preferable to have a consistent approach and it would be simpler to include all these user charges in the Other

revenue category.¹³ This is a presentational change to simplify the calculations and it will have no effect on the redistribution.

- 75 There is no revenue related to water and electricity subsidies because the revenue generated from the sale of electricity and water services is recorded as income by the private or government business enterprises responsible delivering services.
- 76 Staff propose to include all user charges for the existing Services to community category in the Other revenue category and assess them on an EPC basis.

Staff propose to recommend the Commission:

- include all user charges for the activities covered by the existing Services to communities category in the Other revenue category and assess them on an EPC basis.

Location, SDS and wages

- 77 For electricity subsidies, staff intend to develop a cost gradient that includes the influence of remoteness and community size, based on actual subsidies. Therefore, the electricity subsidies assessment will no longer require an additional regional cost weight or SDS factor.
- 78 Remoteness and the size of communities also drive expenses for water subsidies, and staff will ensure these influences are recognised. This may either involve an assessment similar to that for electricity subsidies, or the application of the general regional costs gradient and SDS factor.
- 79 For the other components, staff propose to:
- apply a regional costs disability to community development and amenities, to recognise that costs rise with increasing remoteness
 - consider applying a regional costs disability to environmental protection expenses, discussed further in paragraph 71.
- 80 Staff propose to retain the 2015 Review position on wage costs in this category. Specifically:
- not applying a wage costs factor to electricity and water subsidies because it is not clear that subsidies paid to electricity and water providers are influenced by wage levels
 - applying a wage costs factor to community development and amenities, and environmental protection, to recognise that differences in wage costs have a differential effect on the cost of providing services across States.

¹³ This issue was raised by the ACT in its responses to the Staff Research Paper *CGC 2017-14-S, What States Do – Protection of the environment*.

Staff propose to recommend the Commission:

- discontinue the regional cost weight and SDS factor for electricity subsidies, as the influence of remoteness and SDS will already be captured under the new assessment
- ensure that regional costs and SDS costs are captured in the water subsidies assessment
- retain the 2015 Review assessments of wage costs and regional costs for the remaining components, and consider applying a regional costs disability to environmental protection expenses.

Other issues considered

Non-State sector provision for electricity and water

- 81 The non-State sector funds some electricity generation projects which may reduce the need for State subsidies. The Commonwealth funds renewable energy strategies through the Australian Renewable Energy Agency, and supports energy investment through the Clean Energy Finance Corporation. Some of these projects benefit State governments, either directly through the creation of State-owned generation assets, or indirectly, by allowing States to reduce their subsidies.
- 82 In addition, private companies may supply residential households with energy and water as a by-product of their primary business objectives. For example, Rio Tinto, a major mining resource company, operates energy and water infrastructure in the Pilbara region of Western Australia to support its mining activities and services households in the region. This reduces the need for State subsidies in these remote locations.
- 83 While non-State sector spending is likely to influence the level of State spending on electricity and water, it would be difficult to quantify the effect. Therefore, we do not propose to measure the influence of the non-State sector on utilities subsidies.

Staff propose to recommend the Commission:

- not to assess the effect of the non-State sector on the level of electricity, water and wastewater subsidies.

Private provision of environmental protection services

- 84 Tasmania and the ACT commented on the activities of non-government groups such as Landcare and Coastcare, with the ACT stating that these groups may reduce State costs.¹⁴ While non-government groups provide some environmental protection

¹⁴ Tasmania's and the ACT's comments on Staff Research Paper *CGC 2017-14-S, What States Do – Protection of the environment*.

services, it is not clear there is a differential level of private provision across States. Furthermore, it is likely to be impractical to develop a simple and reliable assessment to measure the influence of the non-State sector on environmental protection expenses.

Staff propose to recommend the Commission:

- not to assess the effect of the non-State sector on the provision of environmental protection services because it is impractical to develop an assessment.

CONCLUSION AND WAY FORWARD

- 85 Comprehensive electricity data have been provided by States which will allow us to better recognise the non-policy influences on the need for electricity subsidies, and to assess these subsidies separately from water subsidies. We intend to investigate if State water data and BOM data can be used to develop a new water subsidies assessment. However, water subsidies may continue to use the more general small remote communities disability if the impact of utility size and customer density cannot be reliably determined. If that is the case, our analysis of the water data should allow us to confirm whether the current community size thresholds (50 to 1 000 people) remain appropriate.
- 86 We will continue to monitor developments in State energy policies which could affect the electricity subsidies assessment.
- 87 States will be asked to provide data on Indigenous community development expenses which should improve the reliability of this assessment.
- 88 We propose to move environmental protection expenses and Other community development and community amenities expenses to the Other expenses category and assess this spending based on population shares and the relevant wage and regional costs disabilities.

Proposed assessment structure

- 89 Staff propose the following assessment structure for this category in the 2020 Review.

Table 11 Proposed Services to communities category structure

Component	Disability	Influence measured by disability
Electricity subsidies	Community size and remoteness	Recognises the cost of providing electricity subsidies is affected by remoteness community size; and potentially, fuel source and Indigenous status of the community.
Water and wastewater subsidies	Community size and remoteness	Recognises the cost of providing water subsidies is affected by remoteness, community size; and potentially, water quality and availability.
Indigenous community development	Discrete Indigenous communities	Recognises that these services cost more to provide in discrete Indigenous communities.
	Location	Recognises the differences in wage costs between States and in the cost of providing services to different areas within a State.

Table 12 Proposed additions to the Other expenses category

Component	Disability	Influence measured by disability
Community development and amenities	Population	EPC assessment because population is considered the appropriate driver.
	Location	Recognises the differences in wage costs between States and in the cost of providing services to different areas within a State.
Environmental protection	Population	EPC assessment because the expenses cover a wide variety of services and cost drivers could not be identified.
	Location	Recognises the differences in wage costs between States; and potentially the cost of providing services to different areas within a State.

Data and information sought from States

90 Table 13 shows the data and other information being sought from States to assist with the development of this assessment.

Table 13 Data and information sought from States

Component	Data requested	Status	Timing
Electricity subsidies	Detailed expense, revenue and community data	All data received by October 2017. Staff proposals for the assessment will be discussed by the OWP in 2 nd quarter 2018.	Complete analysis and consultation by June 2018.
Water and wastewater subsidies	Detailed expense, revenue and community data	All data received by November 2017. Staff proposals for the assessment will be discussed by the OWP in 3 rd quarter 2018	Complete analysis and consultation by October 2018.
Indigenous community development	Detailed expense data	Most States have commented on a draft request which was sent in October 2017. A final request to be sent to States in May 2018. Staff finding will be reported to OWP in 3 rd quarter 2018.	Final data request to be sent in May 2018. Advise States of outcome of data request at OWP meeting in 3 rd quarter 2018.