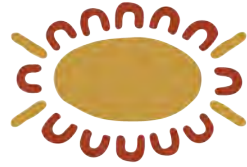


Completion Report

Project Name:	Sandy Bore HHIP
Property Address	Sandy Bore Homeland





**Ingkerreke
Services**
Aboriginal Corporation

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Project Summary

Service provider	Ingkerreke Services Aboriginal Corporation
Contact details	Ms. Jozan Collins T: 08 8950 2200
Australian Business Number (ABN)	41 353 678 701
Contractor Accreditation Limited (CAL) Registration Number	A-18-14798-02-25
Community ID	24898
Asset No.	Houses 1, 2 & 3
Contract No.	HHIPC00003
Completion date	18/12/24

Ingkerreke Services Aboriginal Corporation (ISAC) conducted major infrastructure upgrades to the homeland and minor housing upgrades to all three houses at Sandy Bore Homeland (24898) on behalf of the NT Government and Homeland Residents.

The works have been completed in accordance with the submitted scope of works and saw the final product delivered to the high quality expected by our customer and the community.

The works commenced on the 3rd of May 2024 and were completed on 18th of December representing a 33 week works program.

In the delivery of this project 30% of the labour hours recorded were completed by Aboriginal staff and/or sub-contractors.

The works were designed based on the 9 Healthy Living Principles and with specific attention to family/individual needs as determined by consultation with Residents, other stake holders and ISACs in-house knowledge gained from ongoing MES and R&M works at the Homelands.

As we are the service provider for Sandy Bore our goal in conducting these works was maximise the output of this funding in-line with resident's needs. As well as to ensure quality and durability of work.

The infrastructure upgrades will ensure the ongoing viability of the Sandy Bore homeland for many years to come and will allow for future expansion in line the Traditional Owners wishes.

Ingkerreke Services Aboriginal Corporation have been engaged to deliver the following housing upgrade works at Sandy Bore as part of Capital Grant Funding Agreement (HHIPC00003). The completed works are as follows:

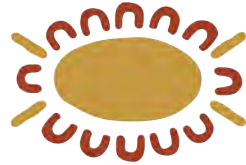
Description

Upgrade solar system. Drill and equip a new bore at a location as per the hydrogeologists report. Install full new septic systems to houses 1 & 3. Perform upgrades to house 1 extension. Perform upgrades to House 2, including installing a new security screen door and upgrades to the deck.

Solar System Upgrades

1. *Remove the existing usable equipment from the engine room power shed, make good, the engine shed wiring etc.*
2. *Install a new 2 room walk-in insulated and air conditioned enclosure to house the new battery and solar equipment. Enclosure shall be mounted to concrete footings or slab.*
3. *Install a new roof structure with customorb and solar framing overhead the new room to provide array mounting and enclosure shade.*
4. *Installation of a new premium BAE gel battery*
5. *Install a new 7.5kw SPro inverter to be linked to the existing 7.5kw inverter in the new equipment room.*
6. *Total inverters capacity will be 15kw DC coupled (2 x 7.5kw), and 21kw AC coupled*
7. *Upgrade existing SPro inverter to the latest PCB communications card to allow parallel connection to the new inverter.*
8. *Install Fronius grid tie inverters and connect to new and old solar arrays. Install new UG line to new solar array.*
9. *1 x 30A Victron solar mppt with LCD for DC coupled solar (2 modules)*
10. *Remove old redundant solar ground array*
11. *Install a new 8.55kwp north facing ground array near existing usable array*
12. *Install a new 5.7kwp roof array to the new enclosure fly-roof.*
13. *Retain genset in existing shed, connect to new inverter system.*
14. *Install a select live remote monitoring interface and connect to existing community wifi for system remote access.*
15. *Installation of a new main distribution board in the new room to connect inverter systems and supply outgoing circuits. Fit kwh metering to system output.*
16. *Removal and packaging/transport of the old battery for recycling.*
17. *Retain automatic genset call connection between inverter and genset.*

Equipment



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Battery - 48V nominal 1 string - 24 x 3040ah German made BAE gel onto fabricated and painted steel racking (Total 145kwh @ 100% depth of discharge/C100 and **33kwh** usable at night @ 30% depth of discharge C10).

Solar - Ground PV - 18 x 475w solar modules (**8.55kwp**)

Roof PV - 14 x 475w (**6.6kwp**) 2 modules DC coupled.

Connection to existing newer ground solar array.(Estimated capacity of 8kwp)

Inverters - DC coupled inverters - 1 x New 7.5kw 48V Selectronic SPPro to be coupled to the existing but relocated 7.5kw SPPro.

AC coupled inverters - 2 x 8kw Fronius grid tie inverter, 1 x 5kw Fronius grid tie inverter.

Upgrade of existing inverter.

Solar MPPT - 1 x 30A victron with lcd display and shunt to supply a minimal amount of DC coupled solar. In the event of system failure this DC coupled solar will maintain the battery at an acceptable level during the fault repair period.

Enclosure - 50mm insulated panel construction with 2 rooms and 2 access doors.

Enclosure size is approximately 3m x 5.4m with a steel base frame with steel treadplate flooring or concrete slab. Enclosure to have fitted passive ventilation, 3.5kw refrigerated air conditioning with thermostat control and cool air transfer fan system to battery room. Spare space for an additional string of BAE batteries.

24 pole metal commercial main distribution board to be installed.

Power and light to be installed.

Signage and instruction placards.

Roof shelter - 8.5m x 4m steel frame fly roof with custom orb cladding and PV framing.

New Bore Works

Drill new bore to an estimated 75m depth and install casing and concrete head.

Equip the bore with:

- Supply of a 6-module fixed solar pumping system kit.
- SQF2.5-2N pump - IO101 backup controller

- Pressure cut-off system - Underground kit complete with Mennekes plug and socket and conduit and cable.
- Manifold with non-return valve, test tap and stop valve.
- Double acting float installed in tank.
- Dig trench and lay reticulation for 50m and connect to existing pipeline.

Fence enclosure to gate panel design, measuring 4m x 8m roughly

Install Community Pressure Pump

- Install pressure pump to service community, improve water pressure and allow for future expansion.

House 1 Upgrades

Install full septic system including:

- Includes Distribution pits.
- 2x 25m Atlantis and pump out points.
- Remove tank at house 1 if not to standards and install septic system.
- Wrap Atlantis boxes with geo fabric to stop sand leeching and causing blockages.
- Install Bollards and Gatik Lid.

Upgrades to House 1

- Tile floor 30 sqm
- Install skirting and other trim.
- Relocate Existing evaporative cooler to external wall.
- Install split system.
- Install guttering to extension
- Rewire and upgrade electrical board
- Paint extension door and seal wall junctions.

House 2 Upgrades

Upgrades to House 2

- Install Security screen door to glass sliding door.

Upgrades to veranda (12mx3m) including:

- Lift decking 9mm FC sheets, install new bearer and stumps, relay decking sheets.
- Paint ramps with nonslip paint and install handrail for ramps.

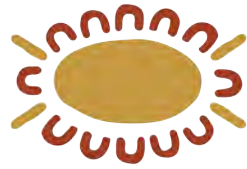
House 3 Upgrades

Install full septic system including:

- Includes Distribution pits.
- 2x 25m Atlantis and pump out points.
- Remove water tank, currently used as a septic tank, and install septic system at house 3Wrap Atlantis boxes with geo fabric to stop sand leeching and causing blockages.
- Install Bollards and Gatik Lid.

Upgrades to House 3

- Tile bathroom floor
- Install and paint door from bathroom to demountable.



Visual Progress

House 1 upgrades:

Electrical board before:



Electrical board after:

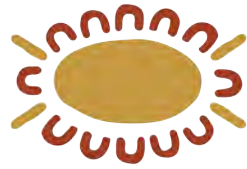


Electrical board before:



Electrical board after:

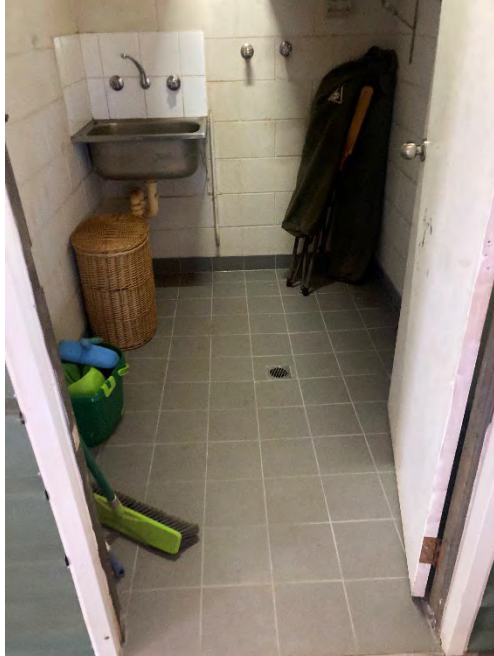




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Tiling to laundry:



Tiling to WC:

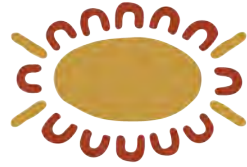


Tiling to extension floor:



Tiling to extension floor:





Unsealed Wall Junctions:



Unsealed Wall Junctions:

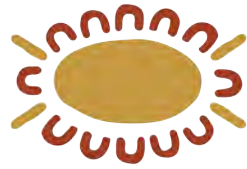


Sealed Wall Junctions:



Sealed Wall Junctions:





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Split system and guttering installed:



Extension door painted:

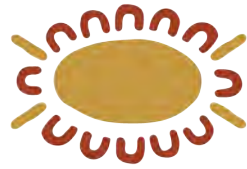


New septic system:



New septic system:





House 2 upgrades:

Security Screen, before:



Security Screen, after:

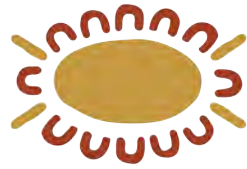


Deck bearer installed:



Deck bearer installed:





Deck stumps and bearer:



Deck sheets re-laid and painted

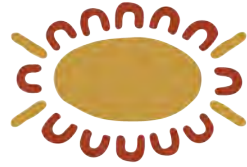


Deck sheets re-laid and painted



Deck sheets re-laid and painted





House 3 upgrades:

Tiling to bathroom:



Tiling to bathroom:

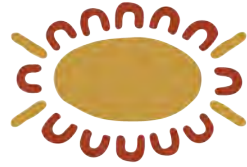


Tiling to bathroom:



Tiling to bathroom:





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Door from bathroom into demountable:



New septic:

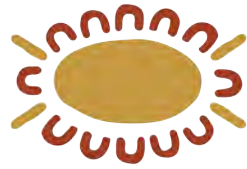


New septic:



New septic:





Solar system upgrades:

Old System:



Old System:



Old System:



Old System:

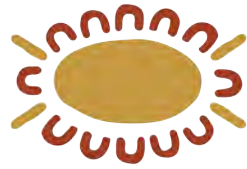


New System:



New System:





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New System:



New System:

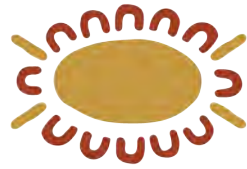


New System:



New System:





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New System:



New System:



New System:



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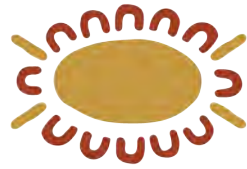


New System:



New System:





Drill and equip new bore:

Bore with enclosure installed:



Bore head:

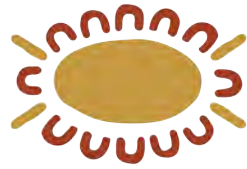


Bore information post:



Bore pump installed:





Solar fixed array installed:



Bore pump controller:



Install community pressure pump:

New pressure pump:



New pressure pump:

