

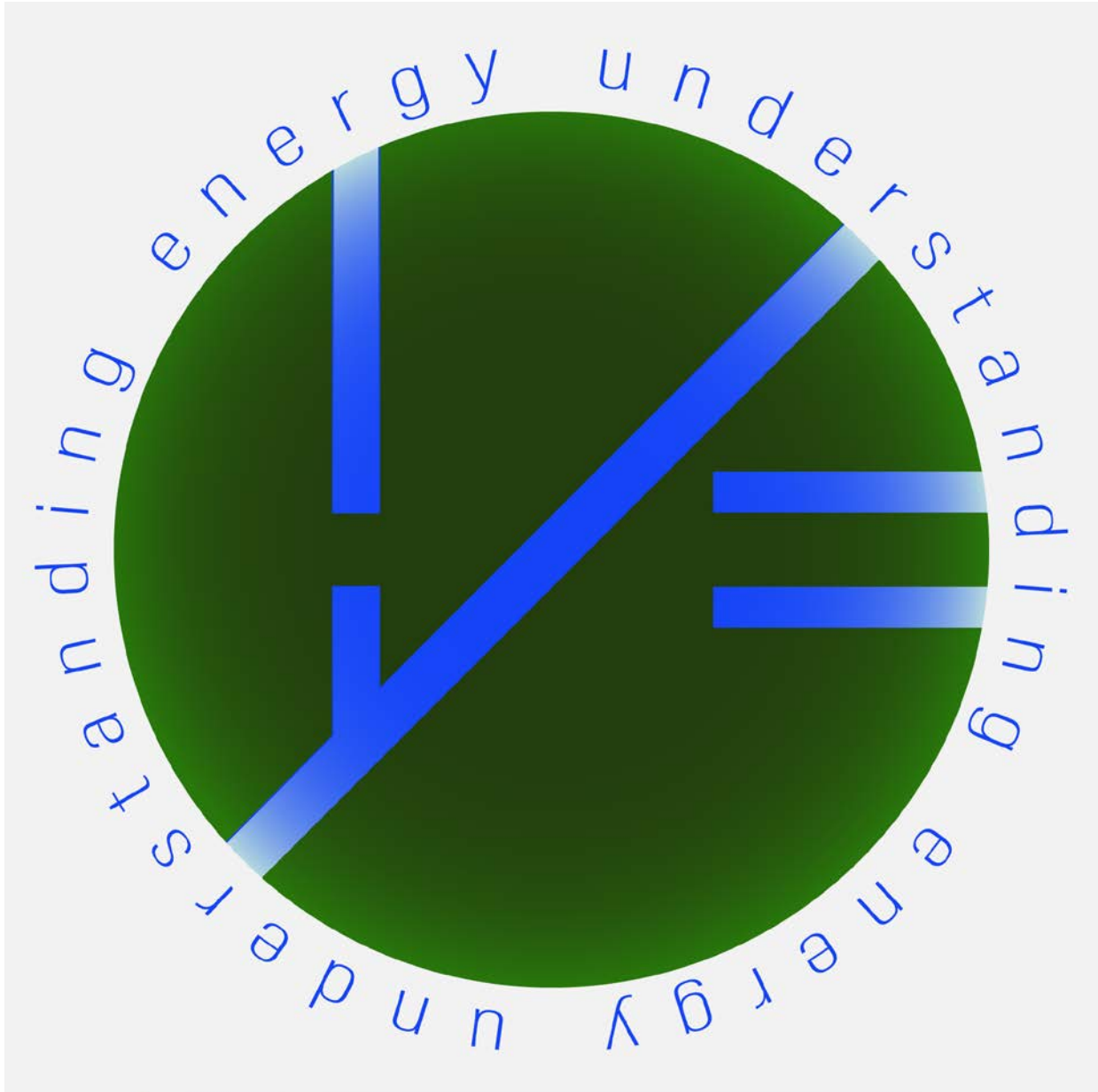


Mechanical
Electrical
Energy
Water
Sustainability

Healey Engineering Pty Ltd
www.understandingenergy.com.au

ABN – 58 084 394 374

Business Profile & Background



PO Box 500, Armadale, Western Australia, 6992
Unit 6 @ 64 Sixth Road, Armadale, WA 6112
info@understandingenergy.com.au
Voice: (+61 8) 9399 2654

File No – 100-StandardBusinessProfile-1809.docx



CONSULTING ENGINEER - INDEPENDENT ADVICE

Healey Engineering Pty Ltd offers their services as independent Designer, Project Manager, Consulting Engineer, and Advisor. We request listing in your Register of Consultants, and be considered for future projects.

Healey Engineering Pty Ltd is an independent advisor, designer and inspector. We have no financial interest in products, equipment manufacturers' agents, contracting companies, or other consulting businesses. Known conflicts of interest are rare, and are declared in advance.

Services Offered

This list is an outline; please enquire for your specific project.

- Mechanical & Electrical Engineering for building services, remote power systems, and energy efficiency and management
- Building services and remote power systems concept advice and options at pre-design stage.
- Design, technical support, documentation, tendering and inspections, contract management, testing, and acceptance of new systems, upgrades and refits.
- Project management and project delivery.
- Maintenance advice, tendering and inspection, reports on conditions of services, energy efficiency, sustainability, effectiveness, owning and life cycle cost, and asset strategies.
- Energy Audit Reports: buildings and associated sites, and assistance with implementation.
- Financial evaluation: Life cycle and ownership, discounted cash flows, NPV, project returns & triple bottom line
- Policy and industry background information.

Energy Efficiency, Carbon Modelling

Solar PV, solar thermal, wind, and renewable energy systems designer since 1980

- Trained in 1983 by Motorola in Arizona – PV Design
- BMW - WA Engineering Panel for Solar PV Design
- CEC (Clean Energy Council) accredited 2000 to 2010.
- ESD principles for environmentally sustainable design.
- Carbon accounting, carbon offsets, climate impact.
- Greenstar CBD and NABERS energy rating and Code compliance advice.
- Engineering & Policy Advice on feed-in tariffs, rebates, support programs, and RECs.
- Solar, wind & renewable energy, green energy and green power options.
- Energy efficiency, energy management, energy and waste audits (pre- and post-occupancy).

Building Engineering Services

Professional building services design experience since 1975

- Natural comfort & healthy buildings using cutting edge techniques
- Conventional energy-efficient services design.
- Active & passive natural ventilation, solar heating, natural cooling and Smart Vent.
- Battery backed grid-connect solar PV and wind power.
- Comfort & ventilation
- Commercial refrigeration & kitchens
- Process cooling & computer rooms
- Industrial piped services
- Heritage Buildings
- Geothermal heating Cooling & Hot Water
- Hydronic Floor Heating
- Climate Wizard free cooling
- Night Cooling and Solar Heat
- Central Heating & Background Heating
- Insulation Double Glazing & Air Sealing

Solar Wind & Diesel Power Systems

- Grid Connect & Grid-Battery Systems
- Independent Power – complete solutions for Remote Sites
- BMW - WA Engineering Panel for Solar PV Design
- Renewables with synchronised multi-diesel installations
- Independent Power Stations - Solar, wind & other renewable power.
- Independent Power Stations – Renewable-diesel hybrid power.
- SCADA and remote management & remote data acquisition via satellite, net or cell phones

Project Management & Delivery – Remote Power & Energy

Remote sites – complete solutions – 72 projects valued at \$23M since 1997

- Resorts, national parks, cattle stations and other farming, indigenous communities, subdivisions.
- Significant cost and fuel savings – sustainable independent sites.
- Total project delivery – mechanical and electrical services, power systems and buildings.
- Total site energy assessment – energy supply and energy use assessments.
- Independent Power Stations - Solar, wind & Renewable-diesel hybrid power.
- Energy efficiency, energy management and load management advice and delivery.
- Power transmission & distribution networks LV & HV.

Residential Buildings

Cutting-edge techniques to achieve natural comfort with little energy use.

- Large and small single residential & high rise multi-residential.
- Wind and solar electric power
- Grid-connect, grid+battery, and fully independent solar-diesel hybrid.
- High efficiency air conditioning & ventilation integrated with passive comfort systems.
- ESD, active & passive natural ventilation, Trombe walls & destratification.
- Climate Wizard semi-passive free cooling
- Direct geothermal air conditioning energy and carbon saving
- Solar air heating, natural cooling, smart vent – giving total energy balance for total comfort.
- Advice on insulation levels, shading, glazing and cross ventilation.
- Pool heating by solar, heat pump or gas – season extension or year round.
- Ground-source geothermal heating & cooling.

Commercial, Institutional, Hospitality & Educational Buildings & Sites

Effective solutions for small, medium and large buildings. Cutting-edge techniques to achieve natural comfort while limiting the need for air conditioning.

- Code compliance & reporting – BCA J-Codes
- Heritage Buildings
- Green star and NABERS energy rating co-ordination, commercial building disclosure (CBD program)
- High efficiency air conditioning & ventilation with automatic passive comfort systems
- Climate Wizard semi-passive free cooling
- Direct geothermal air conditioning energy and carbon saving
- Active & passive natural ventilation, solar air heating, natural cooling, smart vent & destratification
- Intelligent controls and energy management Integrated with efficient services
- Commercial refrigeration, kitchens, hospitality, and production facilities
- Wind and solar electric power – grid-connect, grid+battery, and fully independent solar-diesel hybrid
- Chilled beams, fresh air ventilation, outside air economiser
- Process cooling, computer rooms, environmental chambers, industrial process services
- Ground-source geothermal heating & cooling, in-floor cooling and heating

Objectives and Design Approach

We seek optimum, effective and sustainable outcomes for our Client and society.

We inform our Clients of the range of options available. These can include the energy, life cycle, capital costs, societal impacts, and the resulting comfort and effectiveness of the installations.

We prefer to work on an agreed fixed fee basis, wherever it is possible to determine the scope of work in advance. This is usually more effective for our Clients. If a time-basis fee ("hourly charge") is necessary, we can discuss methods of cost control to eliminate any surprises.

We work on projects where a full consulting service is required, and also where we can assist the Client with specific aspects of the design, tendering or inspections. This adds our skills and adds value to the capabilities that the Client has presently available. This reduces the Client's overall costs and targets our skills.

**SAMPLE PROJECT – 7-STAR +
PINNACLES INTERPRETIVE CENTRE, CERVANTES WA
INTEGRATION OF SOLAR PV POWER, ESD PRINCIPLES IN BUILDING SERVICES**

Seven Star energy performance – measured actual – plus free solar energy. This project was completed before there were “GreenStar” or “NABERS” assessments categories for such a building. As usual Healey Engineering were the successful pioneers.



The Pinnacles Interpretive Centre in Nambung National Park project near Cervantes WA demonstrates our combination of remote-located stand-alone Solar-Diesel Hybrid Power Systems, Energy Management and ESD Building Services.

Healey Engineering Pty Ltd was engaged to design the Mechanical Building Services, Electrical Building & Site Services, Solar & Diesel Power System, and Energy Management. ESD features include automatic “mixed mode” air conditioning and ventilation, and automatically-controlled cross ventilation for significant energy savings (our Smart Vent system), and automatic energy management systems applied to air conditioning and cross ventilation.

During the 12 months maintenance period we monitored and recorded the energy consumption (kWh) and the diesel fuel use for the site. The measured energy use and fuel use was precisely at our pre-tender estimates, as were the capital costs. Compared to the available star ratings the energy use was significantly better than “5-star” probably equivalent to a 7-star project.

In addition the “7-star equivalent” energy use, half of this energy was supplied by solar energy as the solar-diesel power system saved in excess of 55% of the diesel fuel required to power the site. This is cutting-edge technology giving real on-site performance, particularly considering that this is small project of 400 sq.m of buildings.



This project is the featured photo on the website for the BMW Engineering Services Consultants Panel, and we are a Member of that panel.

This project was commissioned in 2005 and almost fully constructed by September 2007, before the establishment of the BMW Consultants Panel in Dec 2007.

SOLAR, WIND & DIESEL - REMOTE POWER SYSTEMS

Healey Engineering Pty Ltd is the most experienced active Services Consulting Engineer in Australia in the complete project delivery of **medium and small** Remote Solar & Diesel Power Systems (1,000 kW through to 10 kW) with broad and deep recent experience. We are also active in Grid- connect solar and solar-battery installations up to 100 kW, and power transmission & distribution networks LV & HV (11 kV up to 30 km).

John Healey was trained in solar-electric (PV photovoltaic) theory, design and construction in 1982 by Motorola in Arizona USA and has been active in renewables design for the most of that 30 years.

Clients include mining, rural properties, resorts, national parks, institutional, local government, public water and energy utilities, indigenous communities and businesses, major international consulting groups, and private residencies and retreats. The majority of our projects are tendered, though we can negotiate direct if the Client chooses.

Completed between 1997 & 2010:

Solar & Wind & Diesel-Hybrid Power Systems:

34 individual remote power projects constructed to a value of \$14,000,000 including new stations and upgrades. This includes 9 new sites since 2007 worth \$6M total.

Diesel-only Power Supply Systems:

40 individual remote power projects constructed to a total value exceeding \$9,000,000, including new stations and upgrades.

Design & Project Management – Total Project Delivery

We deliver Total Projects including the independent power system, solar power, wind power, diesels, synchronisation and automation, remote satellite data access, data logging, buildings, yards, fences, fuel storage and licensing, approvals, air-conditioning, lighting, electrical energy management, load management, structural cyclone ratings, LV and HV power distribution.

We deliver Total Projects and also have worked as sub-consultants to other Project Management groups (Architects, Government, Civil Consultants, and National Parks).

Grid-Connect Solar & Wind – and with Batteries

For private homes, business, educational, resorts and the resources industry:

Grid-connect solar and solar-battery installations of 100 kW

Grid-connect solar & wind designs up to 250 kW

Solar Wind & Diesel Hybrid Power Systems:

1997 to 2010: 34 sites to a value of \$14,000,000. Most projects are “solar-diesel hybrid” with some with wind turbines and others solar—only. Projects include:

Since 2007: Solar Hybrid and Solar-Wind Hybrid projects complete for numerous Clients with 9 separate sites completed worth \$6 M

1997 to 2007: Solar Hybrid and Solar-Wind Hybrid Power Installations completed in Western Australia with 17 locations total value \$4 M

1997 to 2007: Solar Hybrid & Solar-Only Power Installations to the Northern Territory locations with 6 completed projects total value \$4 M

Included are the following completed projects

- Purnululu NP Bungles Rangers HQ
- Karijini NP Visitors Centre
- Cardabia Station (Coral Bay)
- Perup Eco Centre, Manjimup WA
- Cape Range NP Milyering Rangers & Visitors Facilities
- Nambung NP Pinnacles Interpretive Centre
- Doolgunna Research Station
- Kimberley Cattle Stations (2off) Homesteads, Yards, Workshops, Accommodation
- NP Rangers Stations (3 off)
- Mt. Hart Lodge – King Leopold Range Conservation Park WA
- Cape Arid - Esperance Region
- Mulyung (NT) community

- Kutkububba community
- Corella Creek community (NT)
- Wogyala community (NT)
- Wunara community (NT)
- Kalumpurlpa community (NT)
- Buramana NT – 5 Houses Solar Only
- Yagga Yagga community
- Pia Wadjari community solar and wind installation, and power upgrade
- RB Junction community renewable power system
- Frog Hollow community
- Violet valley community
- Norton Bore community
- Wuggubun community (Card Creek)
- Osmond Valley community
- Wungu community
- Darlu-Darlu community
- Lamboo community
- Quartz Blow community
- Wanamulyungdong
- Burrduk
- Djaradjung
- Nygah-Nygah

Diesel-only Power Supply Systems:

40 individual remote power projects constructed to a total value exceeding \$9,000,000, including new stations and upgrades. Scope includes power station upgrades, synchronisation, automation, SCADA and satellite data acquisition projects. These include the following:

- Pandanus Park new diesel power station (210 kW)
- Wurreranginy new diesel power station (110 kW) – includes HV distribution
- Noonkanbah power station upgrade (800 kW)
- Mindibungu power station upgrade (900 kW)
- Koorabye power station upgrade (180 kW)
- Yakanarra power station upgrade (550 kW) – includes HV distribution
- Mulga Queen Community new power installation (90 kW)
- Bardi Community genset upgrade (700 kW added)
- Numerous other “minor” power upgrade projects ranging from \$20,000 to \$150,000.
- HV & LV grid and distribution systems feasibility studies
- Numerous power station and site energy audits
- Inspections, design reviews, site audits, purchase specifications (small works) and advice to Client regarding numerous power installations

PROGRAM MANAGEMENT - REMOTE POWER SYSTEMS

Healey Engineering Pty Ltd has undertaken the RAESP & NAHS (WA & NT) program management. This includes: Maintenance of more than 100 sites & Capital Works for more than \$70 M asset value.

Program Management (between 1997 to 2013) Remote Power Infrastructure Projects

For RAESP we initiated the investment in diesel genset digital automation and remote data links and SCADA via a report in 1999. We managed the subsequent automation roll-out and data links. We also pioneered the Solar-Hybrid installations for RAESP.

ATSIC RAESP WA 2004 to 2006 & Dept of Housing RAESP 2011 to 2013
Capital works design and technical assistance to the RAESP Program Managers, Parsons Brinckerhoff WA, involving remote power infrastructure projects to all WA remote ATSIC communities.
Program Management and design involving maintenance and new capital investment in remote powerstations for aboriginal communities throughout WA, for DH&W.

ATSIC NAHS WA 2000 to 2006
Capital works design and technical to the current NAHS Program Managers, Parsons Brinckerhoff
Program Management role regarding capital investment in remote power infrastructure for aboriginal communities throughout WA, for ATSIC.

ATSIC RAESP WA 1997 to 2004
Capital works design and technical assistance to the RAESP Program Managers, Arup Group, involving remote power infrastructure projects to all WA remote ATSIC communities.
Program Management and design involving maintenance and new capital investment in remote powerstations for aboriginal communities throughout WA, for ATSIC and AAD.

BUILDING SERVICES AND BUILDING ENERGY

A wide range of projects, Commercial, Institutional, Residential Mechanical Services & Air Conditioning from \$10 M to \$10K project value.

Residential Buildings

- Code compliance and energy efficiency
- Large and small single residential & high rise multi-residential
- Wind and solar electric power – grid-connect, grid+battery, and fully independent solar-diesel hybrid
- High efficiency air conditioning & ventilation integrated with passive comfort systems
- ESD, active & passive natural ventilation, Trombe walls & destratification
- Solar air heating, natural cooling, smart vent – giving total energy balance for total comfort
- Advice on insulation levels, shading, glazing and cross ventilation
- Pool heating by solar, heat pump or gas – season extension or year round
- Ground-source geothermal heating & cooling

Commercial, Institutional, Hospitality & Educational Buildings & Sites

- Code compliance and energy efficiency
- Effective solutions for small and large buildings
- High efficiency air conditioning & ventilation with automatic passive comfort systems
- Active & passive natural ventilation, solar air heating, natural cooling, smart vent & destratification
- Intelligent controls and energy management Integrated with efficient services
- Commercial refrigeration, kitchens, hospitality, and production facilities
- Wind and solar electric power – grid-connect, grid+battery, and fully independent solar-diesel hybrid
- Chilled beams, fresh air ventilation, outside air economiser
- Heritage buildings
- Process cooling, computer rooms, environmental chambers, industrial process services
- Ground-source geothermal heating & cooling

ENERGY AUDITING & ENERGY MANAGEMENT

Healey Engineering is an active energy auditor. Since 1991 we have completed the many energy audits and pre-audits, many being federal EEAP or state FEEU audits, and have assisted many Clients with their energy management programs.

The Energy Audit and Pre-Audit

The energy audit is a systematic examination of the consumption of purchased energy at a facility. It can be applied before the building is built (pre-audit) or during operation (energy audit) and can be incorporated with water and waste audits if needed.

Is your business on the right tariff? Are you using excessive energy? If so in which services (light, AC, refrigeration, hot water, etc)? Not every business needs a full energy audit; some need a quick walk-through with written advice, some need advice on a building re-fit, or a specific service (say air conditioning).

A change from an old inefficient air conditioning system to a new efficient system will not save enough money to justify the change. Conversely if the air conditioning system or lighting is near the end of its life, the energy savings along with reduced repairs and better comfort may justify the change. We give complete advice.

You can download from our "Links" page advice on doing your own energy audit. You can do most of the work, and then you can call in an expert for any aspect that you cannot undertake in-house. We would be glad to help.

For remote sites with their own power we can examine the Energy Supply-side (powerstation) & Energy Demand-side (energy use) and provide an analysis of options. Remote sites also need to implement competent Load Management and Demand Management procedures. Some of this can only be done by personnel onsite, and they need good technical advice and support, which we can provide. Every remote power design and audit we have done has included comprehensive advice to our Clients and stakeholders.

Complete Energy Audit Projects

(Medical)

Northampton Hospital
 Three Springs Hospital
 Morawa Hospital
 Mullewa Hospital
 Yalgoo Clinic
 Bennett Brook Hostel for Disability Services WA

(Hospitality Industry)

Observation City Resort Hotel
 The Lodge Motel, South Hedland
 Hunt St Village Motel, South Hedland
 Kings Park Restaurant and Tea Rooms
 Fraser's Restaurant, Kings Park
 Ascot Racecourse Facilities
 Belmont Park Racecourse Facilities
 Golden Mile Village, Kalgoorlie
 Perth Airport International Terminal, Cafes, Bars, Restaurant
 KFC Store, Tuart Hill
 Mindarie Keys Hotel
 Queens Hotel, Highgate
 Hillview Lodge, Tom Price
 Supermarket & Shops, Pannawonica
 Continental Hotel, Broome
 Cable Beach Club, Broome
 Union Tavern, City West
 Rottneest Island Hotel

(Recreational)

Mandurah Aquatic Centre
 Leeming Recreation Centre
 Recreational Centre, Thornlie
 Kalgoorlie Boulder Recreation Centre (design pre-audit)

(Dairies)

Mostert Dairy, Redmond (near Albany)
 "Sinkatinnie" Dairy, Redmond (near Albany)

(Educational)

Samson Primary School
 Montrose Primary School and Education Support Unit
 Bull Creek Primary School
 Tuart College, Tuart Hill
 Warnbro Community High School
 Ballajura Community College
 West Morley Primary School & Education Department P2000 Offices
 South Hedland Senior High School
 Rockingham TAFE College
 Katanning Senior High School
 Narrogin District High School
 Narrogin Agricultural College

(Offices & Industrial)

Offices, City of Kwinana
 Offices, Honeywell - Burswood
 Offices, City of Belmont
 Offices, City of Rockingham Administration
 Offices, (3 sites) for the Environmental Health Directorate WA
 Offices, City of Melville Administration
 Offices, City of Bayswater Administration
 Offices, City of Gosnells Administration
 Offices, TAB Office Building, Herdsman
 Offices, Lotteries House Office Building
 Offices, 169 Hay St, East Perth Office ("6PR Building")
 Offices, Frederick St, Albany
 Offices, BHP Mining, Port Administration Building, Port Hedland
 Offices, GPO Forrest Place, Perth
 Offices, Readymix administration, Perth
 Offices, 44 Kings Park Road
 Email Belmont Warehouse & Offices

(Local Govt)

City of Kwinana
 City of Belmont
 City of Rockingham Administration
 City of Melville Administration
 City of Bayswater Administration
 City of Gosnells Administration
 Town of Northam, Facilities (4 buildings)
 Town of Kwinana (9 separate major facilities)
 City of Gosnells (6 separate major facilities)
 Town of Albany Facilities (5 buildings)

(Various Categories)

Email Belmont Warehouse & Offices
 Agriculture WA facilities, South Perth, (walk through audit)
 Redmont Track maintenance camp, BHP mining
 Chapman Way Shopping Arcade - Geraldton
 McDougall Park Nursing Home
 South Perth Senior Citizens Centre

Manning Senior Citizens Centre
Metro Bus Palmyra Depot and Offices
Orbital Engine Company, Balcatta
 Offices
 Manufacturing
 Testing and Research Facilities
Mt Romance Sandalwood Oil Production Facilities & Offices
Sheen Analytical Laboratories Welshpool
Russell Laboratories, Victoria Park
Quadrascan Graphics Offices and Production
Rottneest Island
 Design of Energy Audit Brief
 Management of Audit Consultants
25 Indigenous Communities in the NT (Barkly & Kakadu)

Complete Sites – Supply & Demand Audits

Audit of Supply Side (powerstation) and Demand Side (community)

Maldives Resort – Huvaafen Fushi Resort – North Male Atoll

Cattle Station Properties in WA – (4 off)

National Parks

- DEC WA – 2 sites in the WA Kimberley Region
- CALM WA Cape Range near Exmouth (2 sites)
- CALM WA Rangers Facilities (3 separate sites) at Millstream & Karijini
- CALM WA Perup Forest Ecology Centre
- CALM WA Doolgunna Station
- CALM WA Cervantes (Nambung NP) Pinnacles Interpretive Centre
- CALM WA & DH&W: twenty eight (28) CALM rangers houses in WA

Indigenous Communities

- Emu Point community near Daly in NT
- Oombulgurri Community (on the Forrest River WA)
- Jigalong Community (near Newman WA)
- Punju Community (near Hedland WA)
- Jinparinya Community (near Hedland WA)
- 4 small communities in the Barkly region of NT

AWARDS

Personal Energy Award – John Healey

2000 WA Energy Efficiency Awards, Finalist, Energy Achiever Award

Project Awards to our Clients

These are awards won by our Clients on projects we have contributed to:

Mediterranean Shipping Company -Cliff Street, Fremantle

Healey Engineering were the Mechanical Services Consulting Engineer
(our Project No 1568)

Slavins Architects created a total renovation of an important Fremantle Heritage building, and a spectacular new building directly adjacent. <https://www.slavinarch.com.au>

- 2018 Australian Steel Industry Award for Small Projects
- 2017 WA Architecture Awards – Winner
- Colorbond Steel Award for Innovation in Steel,
- 2017 WA Architecture Awards – Commendation – Sustainability
- 2017 WA Heritage Awards – Finalist – Conservation or Adaptive Re-use
- 2018 Australian Steel Institute – Winner – Steel Excellence (Small Buildings)

For the same building Van Diddens Painters & Wallcovering received:

- 2016 Master Painters Awards – Winner – Historical Restoration
- 2016 Master Painters Awards – Winner – Industrial and Protective Coatings.

<https://www.vandiddens.com.au>

2017 UNESCO Energy Globe Award – Winner for Australia

The geothermal heating and cooling system for the Kalgoorlie Oasis Indoor Recreational Centre – a massive direct geothermal project designed and installed by Direct Energy Australia
(our Project No 1575)

2006 RIBA (London) Architectural Review Awards for Emerging Architecture:

Honourable Mention – for the Waljamarri Centre at Djugerari WA (near Fitzroy Crossing). This project: "...Iredale Pedersen Hook's community centre for the Walmajarri people on the edge of Australia's Great Sandy Desert has a sense of creative civitas...". (our Project No 1408)

1998 Premiers Award for Public Sector Management

Project lead by Arup (Western Australia) and Aboriginal Affairs Department of WA For the RAESP R&M program
(our Project No 1249)

1998 Western Australian Energy Efficiency Awards, Commercial Buildings category

Awarded to: City of Melville for the energy audit and effective implementation at the Leeming Recreation Centre including staff training. (our Project Number 1101)

1996 Western Australian Energy Efficiency Awards, Commercial Buildings category

Awarded to the Perth Zoo, Western Australia, for the Operations Buildings. In the words of the judges:

" Extensive use of passive solar design, innovative technology, and complementary architectural and mechanical systems, have combined to produce an energy efficient building."

(our Project No 1055)

1994 National Energy Award

Awarded to Perth's Superdome, Claremont, Western Australia (now: Challenge Stadium) for Landfill Gas Utilisation - Heating Boiler Conversion, and the effective implementation of Energy Audit Recommendations and installation of Electronic Building Control System (BMCS)

(our Project No's: 1132 & 1100)

1993 National Energy Award

For the Solar Design Centre Building & Services (our Project No 1042)

1988 Australian Design Award

Low Energy Comfort System (our Project No 1042)

PROFILE

Edward John Healey

Managing Director & Principal Engineer
Chartered Professional Engineer
CPEng BE. MIEAust. M.AIRAH
Healey Engineering Pty Ltd



**ENGINEERS
AUSTRALIA**
Chartered Professional Engineer
MEMBER

Qualifications & Status

Bachelor of Engineering, University of Western Australia (BE UWA)
Chartered Professional Engineer (Australia) CP Eng.
Follow on LinkedIn: John Healey

Memberships

Member: AGA – Australian Geothermal Association Inc.
Associate Member – International Geothermal Association.
Member: Institution of Engineers Australia (MIE Aust) (No 209584).
Member: AIRAH – The Australian Institute of Refrigeration Air Conditioning & Heating (Inc).
Member: EESA – The Electric Energy Society of Australia.
Member: MESA – The Maintenance Engineering Society of Australia Inc.

Experience

Mechanical & Electrical Engineering – Project Management, Design & Contract Administration.
Since 1975: active professional involvement in mechanical engineering building services.
Since 1980: active design in renewable energy and energy management.
Since 1992: engineering business owner manager and principal engineer.

Building Services & Building Energy Management Systems

Broad experience in design and supervision of building services projects, in Western Australia, in every type of facility Office, Hotels, Laboratories, Retail, Schools, Universities, Correctional.
BMW WA – Panel Member for Mechanical Services Engineering.
Specialist in ESD, Building Energy and Building Services Energy. Experienced energy auditor and energy manager.

Solar & Renewable Energy Designer – Since 1980

Trained in solar photovoltaics in 1982 in Arizona by Motorola / Solavolt.
Design and installation experience in solar electric and solar thermal energy systems since 1980.
CEC (Clean Energy Council) accredited 2000 to 2010 to design photovoltaic power systems.
BMW WA – Panel Member for Solar Power Design

Remote Power Design & Project Delivery & Program Management – 1991 to 2013

Design, supervision and project management experience with isolated power infrastructure, solar photovoltaic hybrid & grid-connect, wind energy, solar-diesel hybrid and RAPS systems, and diesel-only systems.
ATSIC/ATSIS, NAHS WA & NT (1999 to 2006)
ATSIC/ATSIS, RAESP WA (1997 to 2006)
Working with NAHS CSPM in each State and the RAESP CSPM in WA, John Healey has helped ATSIS and the CSPM's to deliver reliable and sustainable power to residents in scores of remote communities throughout WA.
Project Manager, Designer and Contract Administration Engineer for the NAHS WA & NT, RAESP WA, ATSIS, AAD, FaHCSIA, ILC CALM, DEC, OofE and other remote power Clients.

Previous Memberships:

Renewable Energy Advisory Council, (REAC) 1993, 1994
Alternative Energy Development Board, (AEDB) 1995,1996,1997, 1998, 1999, 2000.
Building Science Forum (President 1996, 1997, 1998, 1999, 2000)
Solar Energy Industries Association of W.A. (Past President)
Solar Housing Interest Group
Design Mark Assessment Panel
Australian Design Award Assessment Panel