



DUNCAN O'DONNELL

PROFILE

Power Systems Engineer with 17 years of experience, with over 8 of these years as an independent Consultant.

In 2016, formed Do Consulting. Do Consulting has delivered critical engineering standards, asset data engineering, and HV cable engineering services for New Zealand's biggest power companies. In 2024, expanded with the hiring of an engineer.

Seeking contractual work from power companies. Expertise and intellectual property can be leveraged to provide value-for-money solutions to your company.

CONTACT

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HIGHLIGHTS

KEY SERVICES

- Engineering Standards
- Asset Data
- HV Cable Engineering

EXPERIENCE

Since 2003 I have delivered work for:

- 15 different power companies
- 31 different teams within power companies

My broad work experience has given me an understanding of what works well and what does not in practice. Leveraging this experience and my accumulated IP has given me an advantage in rapidly developing clear and concise engineering standards that are comprehensive.

Since becoming a consultant, I have been trusted by the following power companies to deliver their critical work:

Transpower, Vector, Top Energy, Northpower, Counties Energy, Horizon Energy, Wellington Electricity, EEA, Marlborough Lines, Powerco, Electrix (Omexom)

EDUCATION

- Graduated in 2008 with a Bachelor of Engineering (Honours) in Electrical and Electronic Engineering
- Completed ISO9001, CAPM, IMP, and other industry courses
- Awarded Dux (top student) of St Johns College in 2003

WORK EXPERIENCE



DIRECTOR

DO CONSULTING LIMITED

April 2016 - Present (8 years)

Since forming Do Consulting in 2016, NZ's leading power companies have trusted me to deliver critical engineering standards, asset data engineering, and HV cable engineering services.

Startup consultancies usually fail in the first year. Their skillset cannot compete with established consultancies, or they fail to understand their Client's needs. I am proud of Do Consulting's almost 9-year track record of consistently delivering difficult engineering assignments for power companies. This experience has been truly rewarding, especially building relationships with clients. Many continue to reach out for my services, which are as detailed below.

Engineering Standards and Asset Data

- Current: Developing **Transpower's** HVDC data standards and fixing asset data
- Dec 24: Completed **Transpower's** Basis of Design Standard
- Nov 23: Completed **Transpower's** 220kV cable damage investigation
- Mar 23: Updated **Transpower's** PD assessment standards
- Jul 22: Completed **Counties Energy's** maintenance standards
- Nov 21: Completed Gap analysis of **Horizon Energy's** maintenance standards
- Oct 21: Completed **Vector's** suite of asset data standards
- May 20: Completed Gap analysis of **Counties Energy's** maintenance standards
- Feb 20: Completed Gap analysis of **Marlborough Line's** maintenance standards
- Nov 19: Completed **Vector's** Network Connection Code
- Jun 19: Completed **Top Energy's** generator maintenance standard
- Dec 18: Completed **Top Energy's** electrical maintenance standards
- Nov 18: Modified **Vector's** capital works standard
- Nov 18: Completed Gap analysis of **Wellington Electricity's** maintenance standards
- Feb 18: Completed **Transpower's** HV testing maintenance standards
- Dec 17: Completed **Vector's** electrical maintenance standards

Technical Reports, Training, and Contract Management

- Jun 23: Completed PD technical paper & presented at **JICABLE** (France)
- Dec 21: Completed **Vector's** automated Gantt chart and PM tools
- Jan 21: Completed **Vector's** NZS3910 Tendering Automation Project
- Jan 20: Completed **Horizon Energy's** Asset Management Plan review
- Dec 19: Completed **EEA's** custom-tailored standards writing training
- Sep 19: Completed a review of LIDAR and pole photography technology for **Powerco**
- Jul 19: Completed **Horizon Energy's** custom-tailored standards writing training
- Mar 19: Completed **Top Energy's** protection failure investigation
- Nov 18: Completed **Vector's** contractual documents for the RMU Project
- Jun 18: Completed **Transpower's** HTI protection investigation
- May 18: Managed **Transpower's** Waikato Region operations for 3 months
- Jan 18: Managed **Transpower's** national metering operations
- Jan 17: Managed **Transpower's** substations and buildings operations
- Oct 16: Managed **Transpower's** national metering operations

HV Cable Engineering, HV Testing and PD Assessments, Quality Assurance

- Current: Developing **Transpower's** technical training for HV cable testing
- Nov 24: Completed HV cable testing of OTA-ROS, 110kV cables
- Aug 24: Completed HV cable testing of OTA-PEN, 110kV cables
- Jun 24: Completed HV cable testing of OTA-ROS, 110kV cables
- Apr 24: Completed HV cable testing of BHL-PAK, 220kV cables
- Mar 24: Completed HV cable testing of HOB-WRD, 220kV cables
- Jun 23: Completed PD technical paper & presented at **JICABLE** (France)
- Apr 23: Completed HV cable testing of OTA-ROS, 110kV cables
- Apr 23: Completed HV cable testing of BHL-PAK, 220kV cables
- Jan 23: Completed HV cable testing of OTA-PEN, 110kV cables
- Nov 22: Completed HV cable testing of OTA-WKM, 110kV cables
- Aug 22: Completed **Transpower's** PD assessment standards
- Jul 22: Completed HV cable Jointing Engineering
(Included quality control, auditing, and project documentation)
- Jul 22: Completed HV cable testing of BHL-PAK, 220kV cables
- Nov 21: Completed HV cable testing at Pakuranga, 220kV cables
- Jul 21: Completed HV cable testing of OTA-PEN, 110kV cables
- Jun 21: Completed HV cable testing at Highbrook, 110kV cables
- Mar 21: Completed HV cable testing at Highbrook, 110kV cables
- Dec 20: Completed HV cable testing of BHL-PAK, 220kV cables
- Nov 20: Completed HV cable testing at Pakuranga, 220kV cables
- Mar 20: Completed HV cable testing at New Plymouth, 110kV cables 2
- Nov 19: Completed HV cable testing at New Plymouth, 110kV cables 1
- Oct 19: Completed HV cable testing at Highbrook, 110kV cables
- Oct 18: Completed x9 HV cable tests at Otahuhu of two 220kV cables
- Feb 18: Completed **Transpower's** HV cable testing standards



NATIONAL METERING SERVICE DELIVERY MANAGER TRANSPOWER

June 2011 - 2016 (5 years)

- Managed Transpower's Revenue Metering Maintenance contracts for their metering installations across New Zealand
- Our delivery team saved Transpower over \$550k annually by improving the technology of our test sets and sequencing maintenance jobs more efficiently
- Authored three maintenance specifications and modified metering standard maintenance procedures



PROJECT COORDINATOR TRANSPOWER

Aug 2009 - 2011 (2 years)

Project Coordinator for Project NAaN, which involved installing 37km of 220kV XLPE cables from Pakuranga to Albany.

Roles included:

- Site engineering, technical engineering, tender evaluation, and documentation
- Provided technical advice for DTS technology and HVAC resonant cable testing



GRADUATE ENGINEER TRANSPOWER

Sep 2009 - 2011 (2 years)

Transpower's graduate programme involved 12-week placements with the following departments:

- Power System Analysis
- Engineering Services
- Asset Development
- Field Services
- IST
- Consultant (*Beca - Power System Team*)
- Contractor (*Electrix - Maintenance Division*)

UNIVERSITY WORK EXPERIENCE

BECA, UNITED GROUP, F&P HEALTHCARE, TRANSFIELD SERVICES

2003 - 2007

The following jobs I held during my university summer holidays:

2007-08:	Project investigating partial discharge monitoring	(<i>Transfield Services</i>)
2006-07:	HV substation field work	(<i>Transfield Services</i>)
2005-06:	HV substation design engineering	(<i>Beca</i>)
2004-05:	MV cable installer	(<i>United Group</i>)
2003-04:	Assistant on a PCB production line	(<i>Fisher & Paykel Healthcare</i>)

OTHERS

COMPUTER SKILLS

Conversant with the Microsoft applications:

Word, Excel, PowerPoint, Projects

Conversant with engineering applications:

Digsilent, PSCAD, MatLab, Pro/DESKTOP 8, P-Splice, Quickfield, Max2+, R, Java, C, Maximo, Business Intelligence, Smallworld, Maximo, SAP, VBA (advanced macros), Database architecture

INDUSTRY TRAINING

- Completed Certified ISO9001 Lead Auditor – Quality Certification
- Completed Certified Associate in Project Management (CAPM)
- Completed Information Mapping Professional course and passed the exam
- Engineering courses for: Power generation, HVDC, HV cables, and HV cable testing

DRIVING RECORD

- Full driver's license since March 2003.

PERSONAL

- Ethnicity: New Zealander
- Hobbies: Electronics – have filed a patent
- Recreation: Football, tennis, and windsurfing