GLYNDE, ROBIN HOOD AND GOLDEN FLEECE HOTEL ENERGY EFFICIENCY PROJECTS
BUSINESS OVERVIEW

• Family owned Hotels – second generation
• Employ approximately 110 people
• 3 very different Hotels in 3 very different suburbs
• Won numerous industry awards
WHY DID WE EMBARK ON THIS PROGRAM?

• State wide blackout
• 24 hour blackout in 2016 at the Robin Hood – Saturday before Christmas
• Reliability concerns on supply - grid overload in times of high demand
• Cost of electricity – before project over $350,000 per year
• The desire to be in charge of our own power not be beholden to forces outside of our control.
• Opportunity to upgrade inefficient equipment
WHAT DID WE DO??

• Engaged energy consultant to do a level 2 audit to identify inefficiencies
• Worked with consultant to create a hybrid energy plant at each Hotel
• This consisted of – solar, generators, lighting upgrades and other projects
• Also coordinated to run parallel with the grid through SAPN
• Reduction in block demand and capacity through our energy retailer
• Invested over $600,000 in project
• The whole system was designed to reduce stress from the Grid at times of peak demand and allow us to operate in a more efficient and reliable manner.
• Have calculated a pay back of approximately 4 years.
HOW DOES IT WORK?

• The Hotels have embarked on numerous power saving measures as through the level 2 audit

• The next step is to make further savings from the grid.

• The Hotels are operating on a block demand philosophy of under 100kva.

• When the power demands of the Hotel are to exceed the 100kva demand from the grid the generator operates to keep the peak demand below 100kva. – Power lopping

• Example: - Hotel needs 130KW. Solar is producing 40KW. Then generator does not engage. If solar is only producing 20KW then generator picks up the remaining 10KW.
OPERATING PHILOSOPHY

• Grid/Solar - Normal Operating Condition (total building demand below 80 kW) SAPN Network
• Maintains a minimum 14 kW import to contribute to the energy demands of the building
• Generated power from the solar PV inverters contribute towards the supply of the energy requirements for the building for peak lopping; and,
• Runs in parallel with the Network and contributes towards the supply of the energy requirements for the building for peak lopping at high demand; and
• Will NOT export any power to the Network regardless of the building's demand. Diesel Generating Unit(s)
WHAT NEXT?

• Spot market
• Software to monitor and coordinate generator and grid.
• Extremely volatile
• Can be paid to use electricity
• Generator takes Hotels off grid when the spot market exceeds the cost of running the generator and stays running until pricing normalises
• Batteries – can be recharged during times of low prices and or when being paid to consume.
• Off Grid – an aim. Our system is set up to facilitate this. Just need storage to become more efficient and cost effective.
LETS DRINK TO THAT!