

Maximising the cost effectiveness of your demand management program



Does your network planning process need transparent and efficient screening and integration of demand side resources?

Do you need design advice or technical modelling support to:

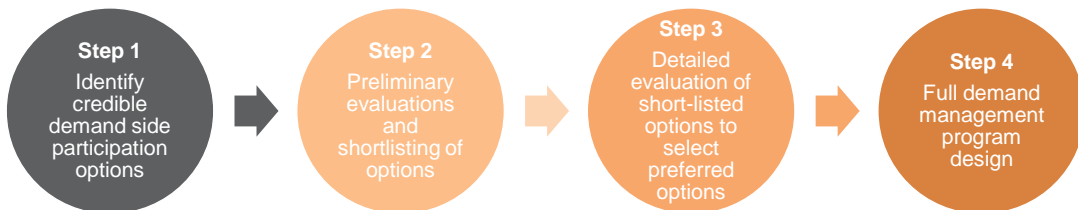
- evaluate demand management program structures, as well as individual measures?
- determine the optimal incentive mechanism and level to maximise the technical, economic and market potential of a program?



Energetics can assist you with the selection and development of cost-effective demand management programs

Over the years, Energetics has developed a variety of demand management evaluation methodologies. Energetics' best practice approach to the design and implementation of demand management programs is recognised by government and industry.

The Energetics approach supports robust decision making. Our design process for non-network solutions is in line with regulations related to the network planning and expansion framework, as well as demand management incentive schemes. The process of selecting and justifying options, summarised below, also aligns with the typical evaluation framework required under regulatory requirements.



Step 1 Identify credible demand management options

This step involves listing all non-network options that could potentially be commercially and technically feasible. It considers the geographic area, customer segmentation in the area, base year and reference case projections as well as differentiating existing equipment stock and new equipment sales and impact on both new and existing buildings. This would typically include opportunities around:

- energy efficiency
- peak load management (such as cost reflective tariff initiatives, voluntary curtailable load and direct load control), and
- distributed energy generation (including renewable energy).

Step 2 Preliminary evaluation and short-listing options

The screening test makes an overall judgement about whether it is reasonable to expect that cost-effective demand management solutions exist. This is based on the demand management requirement (level and timing of deferral), all available knowledge relating to our experience with demand management options, the load characteristics, and the results of our demand management screening model.

From this process we assess and rank selected demand management measures and aggregation of measures that appear most attractive for further development. We can rank the options by marginal cost of peak demand abated, considering capacity, load factor and coincidence and select the least expensive resources up to the point that their total capacity is sufficient to meet the projected demand.

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Step 3 Detailed evaluation and selection of preferred options

Once the most attractive combination of demand side resources is identified, we can conduct a detailed scoping of the program types for implementation by applying our proprietary demand management assessment model.

Step 4 Detailed design of demand management program

This last step involves the detailed description of a program implementation plan. Beyond the description of the program, its rationale and its measures, such plan includes quantitative program targets and definitions of the market segment, related marketing activities, incentive design and eligibility, indicative program impact, program budget and cost-effectiveness.

Energetics is here to assist

Energetics has a long history in providing demand management services ranging from assisting governmental agencies and utilities nationwide to implementing demand reduction projects with end-users.

We have experience in designing cost effective programs that achieve high take-up rates in residential, commercial and industrial sectors.

Over the years, we have worked with state and federal governmental agencies as well as network service providers in assessing and designing Energy Conservation and Demand Management programs. Our recommendations are based on:

- The development of bottom-up estimates of the potential to reduce electrical demand and energy consumption;
- A transparent and replicable approach for linking energy efficiency to system or localised peak demand reduction;
- A robust methodology for baseline development and forecasting avoided costs that consider area and time-specific avoided network investment costs;
- The application of a range of cost effectiveness tests (e.g. total resource cost, ratepayer impact measure), in line with the policy or program objectives;
- The assessment of the market potential, beyond the technical and economic potentials, through the application of semi-empirical market adoption functions; and
- The ability to evaluate the most appropriate implementation strategy and incentive mechanism.

We have a strong track record of assisting clients

Here are some of the most recent projects Energetics delivered in the demand management services market:

NSW Office of Environment and Heritage	Economic benefits of demand management and energy efficiency in New South Wales
Western Power	Development of demand management screening tool
Ergon Energy	Identification and evaluation of energy efficiency/demand reduction opportunities for SME customers in a specific network area
Ausgrid	Assessment of demand side abatement programs
Confidential client	Assessment of demand response potential in the National Electricity Market

For further information contact



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