

# A balancing act

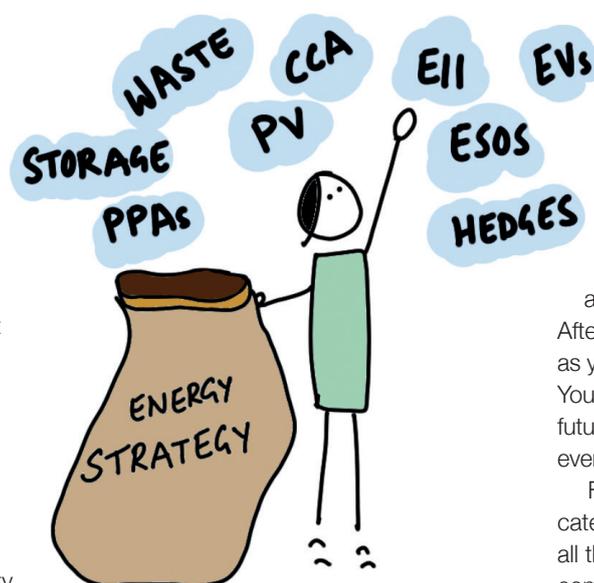
Today's energy manager is being pulled and pushed in very different directions by mounting numbers of forces. Ameresco's Managing Director, Katherine Chapman shows a way through.

Growing job complexity is emerging as an overriding theme when we speak with energy managers at the MEUC roadshows and when visiting sites. Options have multiplied for organisations that use a lot of energy, have complex operations and have many sites, making it harder to work out which strategy is best and how to explain it to decision makers unfamiliar with the field.

It makes a lot of sense, for example, for an organisation to consider investing in gas combined heat and power. Making your own electricity is attractive when gas prices are rising more slowly than electricity prices. If you are an energy intensive business, however, you may save as much from the energy intensive industry (EII) rebate as you would make from the switch to gas, making it uneconomic to shift to the cleaner fuel. If you have a climate change agreement, the savings you have made by being energy efficient will increase the payback period for nearly every project you consider, making it harder to get them approved.

Then there are all the things you can do, either with a supplier or on your own. Should you hedge your position on the over-the-counter market? Get a special long-term deal? Sleeve in a power purchase agreement? If you fill the majority of your position before you need to use it, what happens if things change? What if something like Brexit means that your production halves in a year? What does that do to your market positions or to the repayments based on savings or usage for a project? Should you change when and how you use energy or invest in new kit to make you more flexible? Will that get you a return or protect you from brownouts? What about the costs of connections and what does it mean for you if you are going over your capacity limits? How should you position yourself to be ready when electric vehicles and batteries are a larger part of your portfolio?

The energy manager of tomorrow needs to be a market analyst, portfolio manager, accountant, environmentalist, technologist, engineer, lawyer and negotiator. You need



to be able to select from different choices, weigh up the pros and cons, model likely outcomes, evaluate the probabilities of success, identify risks, select mitigating actions and convince company chiefs to buy into your vision of the future.

At events like the MEUC roadshows you get an opportunity to hear from suppliers, consultants and colleagues about the opportunities, issues and challenges as we move to a low-carbon economy. There's so much to do, so how can we come up with a strategy that works?

## Balanced risk

At Ameresco we use the term Balanced Risk Portfolio to describe the solution to this array of challenges faced by energy managers. It addresses the options available to you and which ones should you select. Then, from the options you have selected, it guides you on how much consumption you should allocate to each one.

Think of it as like managing a financial portfolio. You might invest some money in stocks, hoping for growth. You might keep some in bonds, to preserve capital. And you might stash some in cash for a rainy day. You might start by putting a third into each option. Then you start to rebalance the portfolio. Perhaps you don't need any cash right now but want a return. In that case, you

might allocate more to stocks. If you need a regular income, then bonds may work.

The choices of a financial investment portfolio seem simple when you think about what an energy manager has to do. After all, the portfolio never closes. As long as you are in business, you will use energy. You might use less in the factory of the future, where robots working in the dark run everything. But we will continue to use energy.

From our experience, there are seven categories to an energy strategy that cover all the challenges that come with large, complex portfolios. They are:

- how you buy it,
- how sustainable it is,
- how you use it,
- the technologies you select,
- the law,
- portfolio administration and
- how you invest your capital.

Most of you do some of these. Few will do all of them, unless you have a long-standing energy management programme in place with board-level sponsorship and a committed leadership team although, on that front, things are going in the right direction.

While a few years ago, you might have had a couple projects to look at – perhaps LED lighting and rooftop solar – it's common today for energy managers to have 10-20 projects being evaluated, with responsibility for waste, transport and fuel thrown in.

What we're trying to do is balance it all – using tools like Marginal Abatement Cost Curve analysis and 30-year Power Services Agreements that help us construct and manage a portfolio that works for our clients, instead of having to put together a jigsaw of ill-fitting pieces. The Balanced Risk Portfolio is flexible enough to cope with change in technologies, products and processes while providing a structure that enables you to make sound decisions. And, at the end of it, that's what energy managers are saying they have to do – make big decisions.