LOCAL GOVERNMENTS

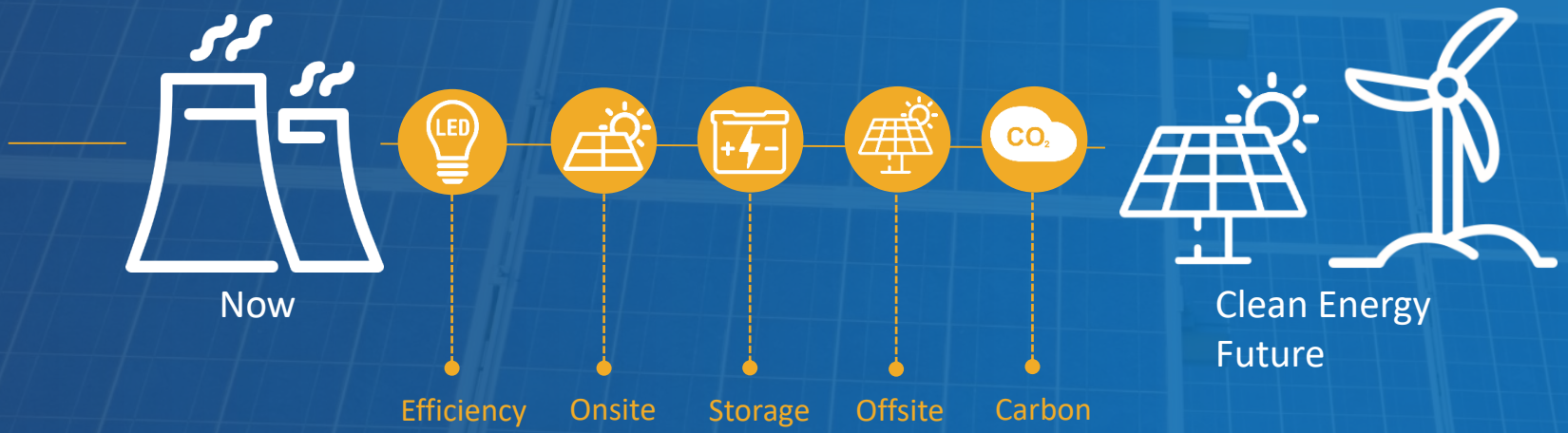
FINANCING OPTIONS FOR SUSTAINABILITY PROJECTS

100% renewables

GUIDE

What we will cover

We help business transition to clean energy and net zero



100% renewables

100% Renewables

- Preferred supplier to NSW, ACT, Commonwealth Governments
- Trusted advisor to more than 25 local councils in NSW
- Independent of any product suppliers

Overview

OPTIMAL FINANCING STRATEGY FOR LOCAL GOVERNMENTS, © 100% RENEWABLES

02
Why you need a financing strategy

Reasons you need a financing strategy

- Most sustainability initiatives require some sort financing
- Need to plan ahead to align with
  - Strategic (e.g. Community Strategic Plan or CSP) and delivery/ operational plans
  - Budgetary cycles
  - Sustainability targets
- Determine the best way to finance sustainability projects given your circumstances and objectives


03
Organisational
alignment

ALIGNING A LOCAL GOVERNMENT'S FINANCING STRATEGY WITH STRATEGIC AND OPERATIONAL PLANS

Community Strategic Plan (CSP)

Environmental or Sustainability Strategy

Operational and Delivery Plans

Financing Strategy


04
What are your financing options?

Financing options

1. Pre-existing and future incentives and grants
2. Environmental levy/Special Rate Variation
3. Self-financed through normal budgeting process
4. Self-financed through Revolving Energy Fund (REF)
5. Internal carbon price
6. Loan financed
7. Equipment lease
8. On-bill financing
9. Onsite Power Purchase Agreement (PPA)
10. Energy Performance Contracts
11. Community energy projects

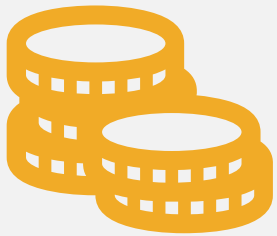
Free money

Internal funding

Council borrows

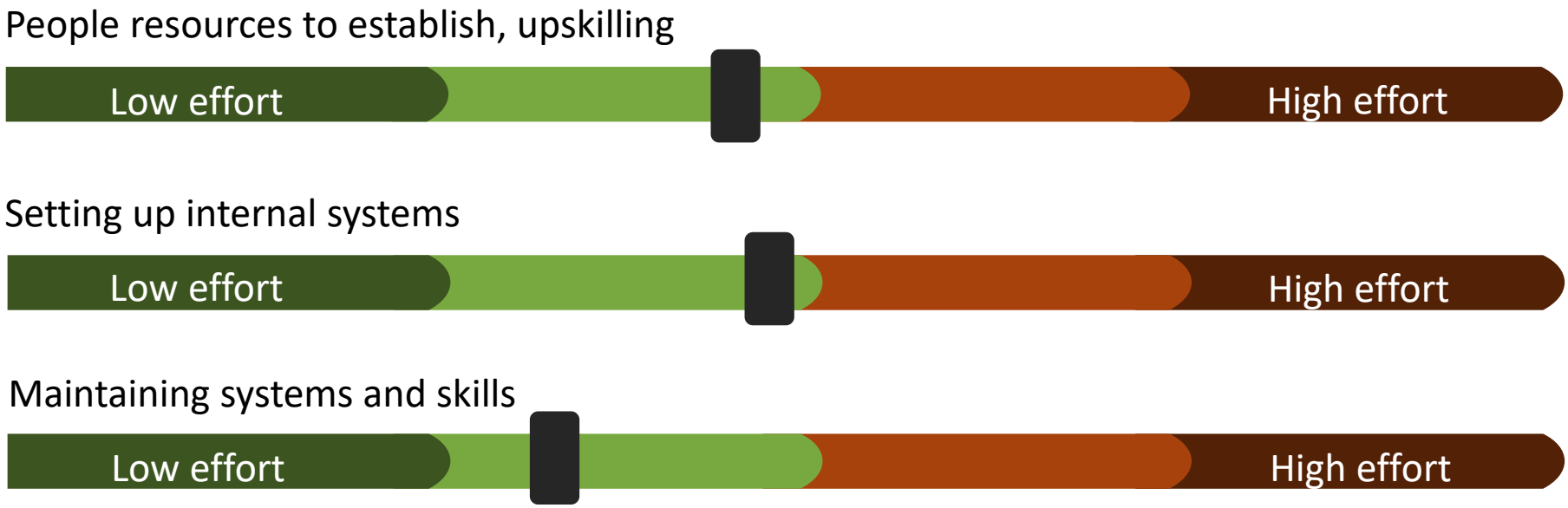
Third party

1. Pre-existing and future incentives and grants



- Small-scale Technology Certificates (STCs)
- Large-scale Generation Certificates (LGCs)
- Energy Saving Certificates (ESCs)
- NSW Climate Change Fund
- Grants and incentives (e.g. OEH Heritage, Knowledge Sharing Initiative, CEEP, LGEEP)
- Potential CEFC and ARENA financing

Impacts of establishing and maintaining financing from incentives and grants



Pre-existing and future incentives and grants

Provide discounts on renewable energy and energy efficiency projects (or ongoing revenue in the case of LGCs)

Less internal resistance for sustainability initiatives

Doesn't compete with funds for other projects

Special skills required for grant appl. process

Grants may need matched funding

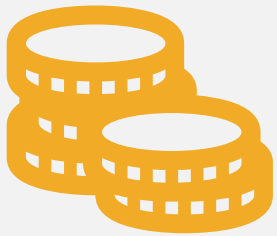
Grants may not align with budget cycles

Need to have projects 'shovel-ready' to apply

Always need to investigate when grant financing is available

Risk in LGC value

2. Environmental levy/Special Rate Variation



- Special rate paid by residents
- Generally used for protection of the natural environment, but can also be used for energy efficiency and solar PV projects
- Examples:
  - Coffs Harbour Council (since 2003, $1.3m p.a)
  - Blue Mountains (SRV since 2015, replacing previous environmental levy)
  - Willoughby (e.restore generates >$4m p.a. for sustainability initiatives

Impacts of establishing and maintaining financing from environmental levy/SRV

People resources to establish, upskilling

Setting up internal systems

Maintaining systems and skills

Environmental levy/Special Rate Variation

Continuous funds

Expectation that funds will be spent on environmental projects

Great financial return

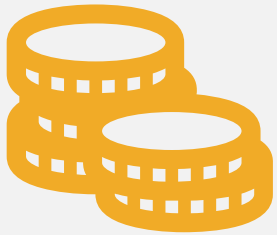
Community has to be willing to accept expenditure on sustainability projects

Council has to account and report on how the money was spent

Case Study Environmental Levy – Ku-ring-gai Council

From http://www.kmc.nsw.gov.au/Current_projects_priorities/Key_priorities/Environment_sustainability/Environmental_Levy

3. Self-funded through normal budgeting process



- Energy efficiency and renewable energy projects financed directly from capital budget
- Possible options:
  - General funds
  - Water and sewer funds (regional councils)
  - Streetlighting fund (for SL upgrades)
  - Potentially Section 7.11 (formerly S94) and Section 7.12 (formerly S94A)
- Projects may compete for funds with other activities
- Energy efficiency measures are likely to be funded through this option

Impacts of establishing and maintaining financing from budget

People resources to establish, upskilling

Setting up internal systems

Maintaining systems and skills

Self-funded through normal budgeting process – pros and cons

No contractual obligation

In most cases best financial return

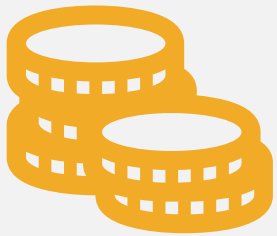
Owning the equipment

Financial and performance risk

Responsibility for maintenance

Less capital for core business activities

4. Self-funded through Revolving Energy Fund (REF)



- A REF is a sustainable financing mechanism
- Savings from sustainability projects are tracked and used to replenish the fund for the next round of investments
- Seed fund can come from capex or opex budget
- Essential that the portfolio performance and cash injections are forecast to see whether the fund will grow or deplete over time
- REFs can be very popular but need to be set up well in order to work

Self-funded through Revolving Energy Fund (REF)

Impacts of establishing and maintaining financing from a REF

People resources to establish, upskilling

Setting up internal systems

Maintaining systems and skills

Self-funded through Revolving Energy Fund (REF) – pros and cons

Monetary investment spent many times without reducing its value

Financing of sustainability projects becomes an organisational habit

Can make it easier to get sustainability projects over the line

Verification of savings can be challenging and expensive depending on the method used

Requires time to implement and convince stakeholders

Requires seed financing and availability of money in the fund to be functional

Council resolution may be required

Case Study REF – Penrith City Council

- Penrith Council has a forward financing financial reserve
- Balance maintained through payback of cost savings from projects
- Initially used an actual savings approach, but found that this was too difficult to implement
- Switched to estimated savings
- 100% of realised savings reinvested into the REF for 3 years
- Council ensured asset managers were in charge of electricity bills to ensure incentive to reduce costs

5. Internal carbon price

A value that organisations voluntarily set to internalise the economic cost of their GHG emissions

01

SHADOW PRICE

Hypothetical or assumed cost for carbon emissions to better understand the potential impact of external carbon pricing

02

INTERNAL TAXES, FEES, OR TRADING SYSTEMS

Formal financial incentive or program. Internal fee for various activities or expenditures.

03

IMPLICIT PRICE

Implicit cost per tonne of carbon emissions based on how much an organisation spends to reduce its emissions.

DIRECT

INDIRECT

Impacts of establishing and maintaining financing from internal carbon price

People resources to establish, upskilling

Setting up internal systems

Maintaining systems and skills

Internal carbon price– pros and cons

Easier to fund sustainability initiatives

Shift in organisational thinking to be less carbon intensive

Ability to establish a Science-Based Target

Difficult to implement

Difficult to generate buy-in from business units with high emissions

Case Study– Internal carbon price

- **Microsoft** – Carbon Fee
  - Assigned a carbon fee in 2012 across its business units
  - Funds used to pay for energy efficiency projects, renewable energy projects and launching new product lines
- **National Australia Bank** – Implicit price on carbon
  - Introduced in 2010 to fund its goal of becoming carbon neutral through offset purchases and energy efficiency projects
- **ENGIE** – Shadow price
  - Implemented a price on carbon for future investments to lower investment in high emissions energy generation

HOW TO SET AN INTERNAL CARBON PRICE

1
Calculate your carbon impact

2
Establish reduction targets

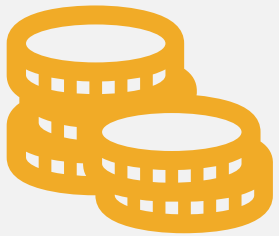
3
Get support and set carbon price

4
Integrate into strategy & planning

5
Monitor performance

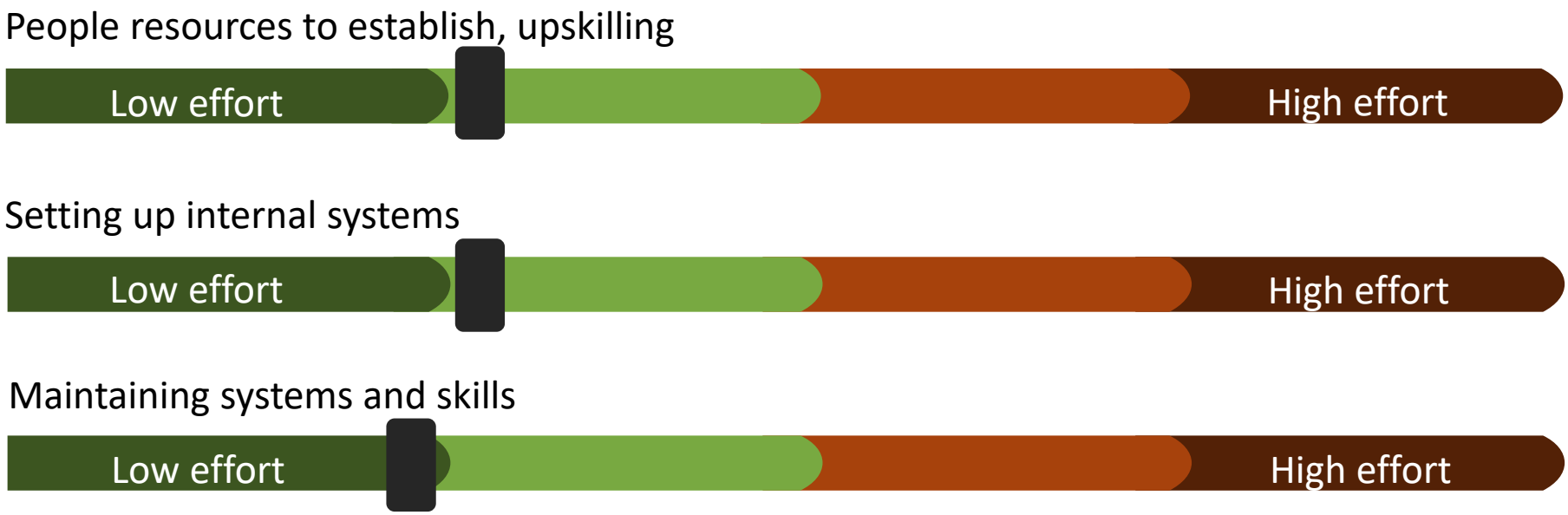
100% renewables

6. Loan-funded



- Lender provides capital
- Pre-determined variable interest rate
- Repayments are made over time
- Typically used for expensive equipment

Impacts of establishing and maintaining financing from a loan



Loan-funded – pros and cons

No or reduced upfront cost

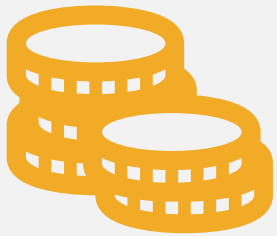
Capital available for other projects

Councils have access to cheap interest rates

Economic and technical risk if equipment becomes unusable and the loan is on the balance sheet

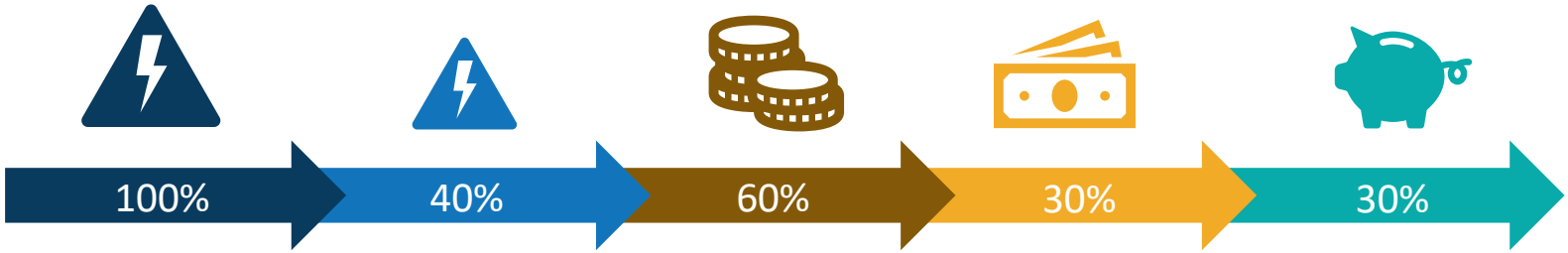
Financial returns are less compared with self-funded equipment

7. Equipment lease



- Supplier owns and installs equipment
- Monthly repayments for 5-10 years
- Options for end of the lease:
  - Remove
  - Rollover
  - Buyout

Equipment lease



Energy use before the project	Energy use after the project	Gross savings for Council	Equipment lease payment	Net savings for Council

Impacts of establishing and maintaining financing from an equipment lease

People resources to establish, upskilling

Setting up internal systems

Maintaining systems and skills

Equipment lease – pros and cons

Supplier responsible for maintenance

No or modest upfront cost

Cost of investment spread out

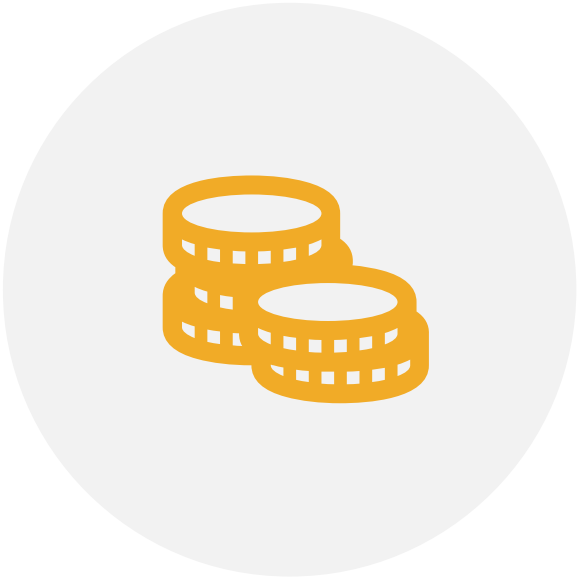
Access to new equipment after the lease has run out

Repayments with interest are incurred

Equipment is more expensive compared to upfront purchases

No ownership

8. On-bill financing



- Retailer installs equipment
- Repaid through a repayment charge on the energy bill
- Once payments are made ownership is transferred

Impacts of establishing and maintaining financing from on-bill financing

People resources to establish, upskilling

Setting up internal systems

Maintaining systems and skills

On-bill financing – pros and cons

No or reduced upfront cost

Payment via utility bill reduces risk of default

Repayment liability on the balance sheet

May tie customer to the energy retailer

May be more expensive in the long run

9. Onsite Power Purchase Agreement (PPA) – behind-the-meter

- PPA provider designs, constructs, owns, operates and finances the renewable energy generation equipment
- PPA provider retains ownership and responsibility for maintenance
- Company agrees to purchase certain amount of electricity from provider
  - Purchase price of electricity lower than bundled price of electricity from the grid
- OEH has created a panel of preferred suppliers
  - https://www.environment.nsw.gov.au/government/solar.htm

Solar PPAs

PPA Provider

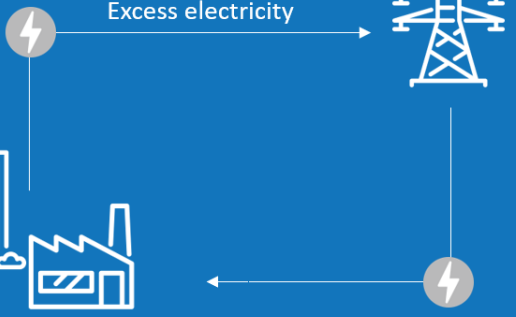
- Owns, finances and installs the solar PV
- Operates and maintains the system

Solar PV system

- Installed at no initial costs
- Can be transferred upon expiry

Electricity Retailer

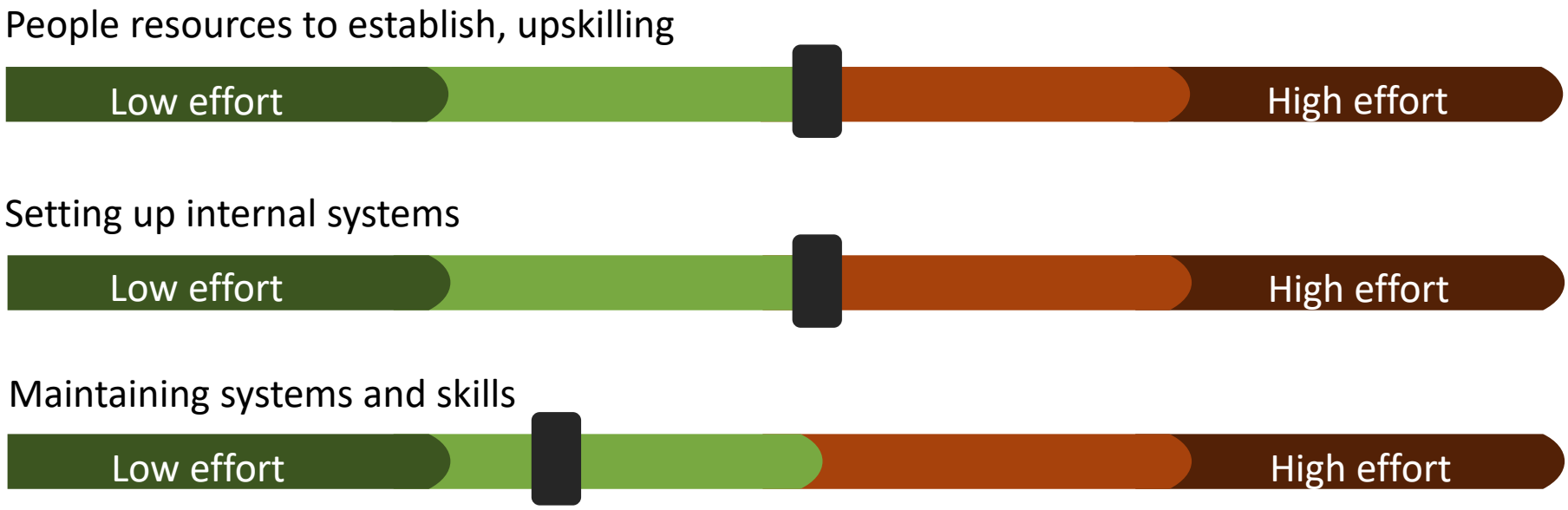
- Electricity retail agreement
- Continues to supply electricity from grid
- May purchase excess solar generation



Your organisation

- Buys solar energy from PPA provider cheaper than grid
- Buys less energy from retailer

Impacts of establishing and maintaining financing from an onsite PPA



Power Purchase Agreement (PPA) – pros and cons

Cheaper price for electricity

No upfront cost

Provider takes responsibility of maintenance and equipment replacement

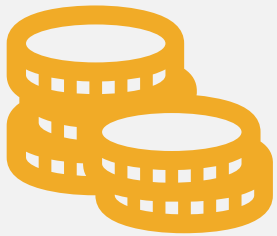
LGC risk is taken by the solar PPA provider (>100kW)

Not beneficial for small systems especially those under 100 kW

Ties customer to the PPA provider

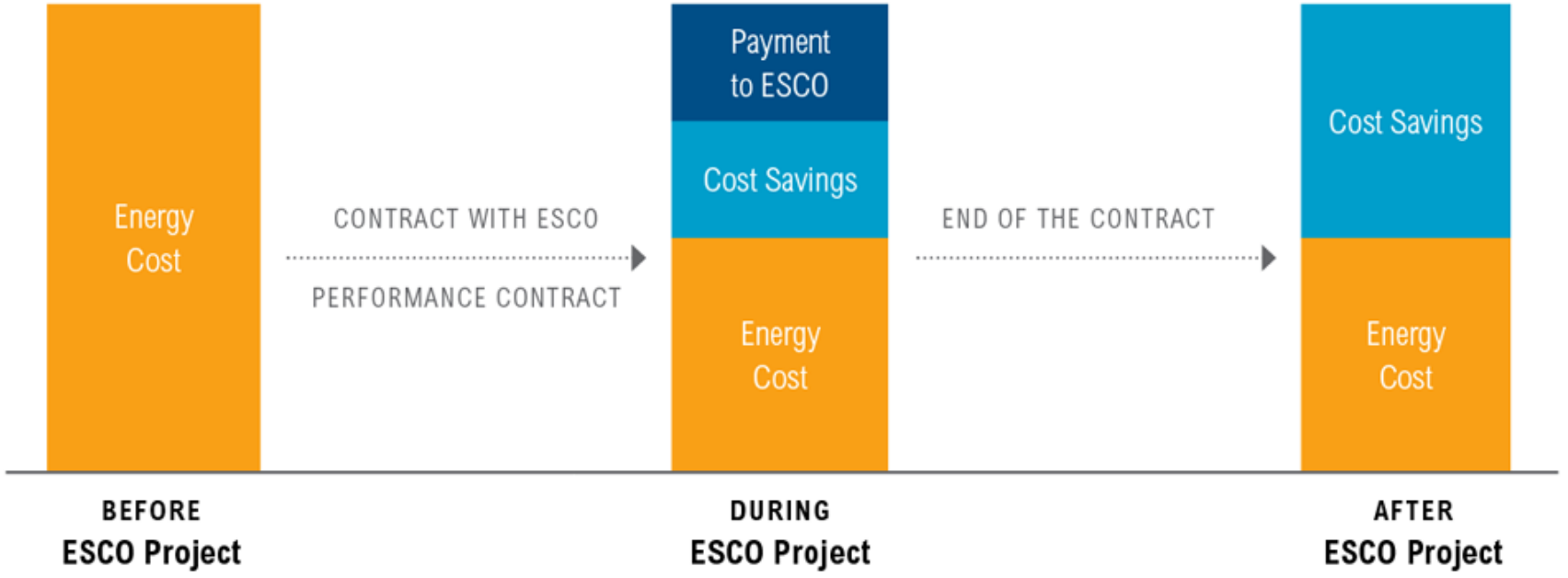
Higher cost in the long run for solar

10. Energy Performance Contracts (EPCs)



- An EPC is a contract between an energy service company (ESCO) and an organisation
- Under an EPC,
  - the ESCO is engaged to improve the energy efficiency of a facility
  - the ESCO examines a facility,
  - evaluates the level of energy savings that could be achieved,
  - then offers to implement the project and guarantee those savings over an agreed term
  - The guaranteed energy savings from the project pay for the capital investment required for the project

Energy Performance Contracts (EPCs)



wri.org/buildingefficiency

WORLD RESOURCES INSTITUTE

Impacts of establishing and maintaining financing from an EPC

People resources to establish, upskilling

Setting up internal systems

Maintaining systems and skills

Energy Performance Contracts (EPCs) – pros and cons

Upgrade aging and inefficient assets

Technical and financial risk borne by ESCO

Guaranteed savings reduces the risk of savings erosion over time

Require a large project above $500K to attract ESCOs

Not cost effective for addressing a single measure

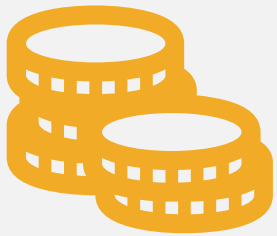
Establishing governance arrangements

Skills are being outsourced to another provider, no upskilling in the organisation

Energy Performance Contracts (EPCs) – Warringah Council Case Study

- Commenced an EPC to improve energy efficiency in several buildings
- Contract valued at $560,000 over two years with replacement of
  - Lighting
  - Plant and equipment
- Saved
  - 1,155 GJ
  - 300 t CO2-e

11. Community energy projects



- Community energy projects are usually either structured as a PPA or a community loan
- With a PPA,
  - renewable energy is developed and owned by the community,
  - The host buys the energy (example: Repower Shoalhaven)
- With a loan,
  - funds are raised from investors and lent to the host who builds and operates renewable energy projects.
  - The host repays the loan (example: Lismore City Council, Farming the Sun)
- Council could be host to a community energy project to develop solar projects in the local area

Impacts of establishing and maintaining financing from a community project

People resources to establish, upskilling

Setting up internal systems

Maintaining systems and skills

Community energy projects – pros and cons

Financial benefits returned to the community

Transfer of skills and knowledge of renewable energy to the local community

Raises the profile of Council

Shares the financial rewards with the community

Take a long time to set up

Financial benefits are not as great as compared to being funded from capital budget

Significant resources required to implement

Summary of financing options 1/2

	People resources to establish, upskilling	Setting up internal systems	Maintaining systems and skills
1. Existing/future incentives & grants			
2. Environmental levy/SRV			
3. Normal budgeting process			
4. Revolving Energy Fund			
5. Internal carbon price			
6. Loan-funded			

Legend:

Summary of financing options 2/2

	People resources to establish, upskilling	Setting up internal systems	Maintaining systems and skills
7. Equipment lease			
8. On-bill financing			
9. Onsite PPA			
10. Energy Performance Contracts			
11. Community energy projects			

Legend:


Remember: Financing options are not mutually exclusive


05
Integrating financing into your strategy

Method for integrating the financing with your sustainability strategy

1. Run a workshop

- Pre-evaluate possible financing options and select shortlist
- How does each option relate to Council's current situation?
- What are the risks and opportunities of each option?
- Let the group determine the best options
- Develop a draft pathway

2. Present to the leadership team

- Get feedback from leadership team
- Refine Council's preferred financing options
- Develop a pathway for implementation

OPTIMAL FINANCING STRATEGY FOR LOCAL GOVERNMENTS, © 100% RENEWABLES

01

FREE MONEY

Grants and incentives, STCs, LGCs, ESCs

02

INTERNAL FINANCING

Money with low opportunity cost. From budget, REF, carbon price

03

COUNCIL BORROWS

Typically for capital-intensive projects. CEFC or low interest finance

04

THIRD PARTY

Higher financing costs. Lease, EPC, PPA, Community energy

Need help with developing your Financing Strategy?

- How does each option relate to Council's current situation?
- What are the risks and opportunities of each option?
- What are the financial outcomes of the various funding options?

100% Renewables is specialised in helping our clients develop business cases and model financial outcomes.

If you need help with shortlisting financing options, preparing a workshop or presentation for your senior management, or with modelling different funding options, please talk to us.

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THANK YOU

100%
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